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Patented Dec. 16, 1902.

E. N. DAVIS.

SWINGING JOINTED MAST ARM FIXTURE.

(Application filed Apr. 25, 1902.)

(No Model.)

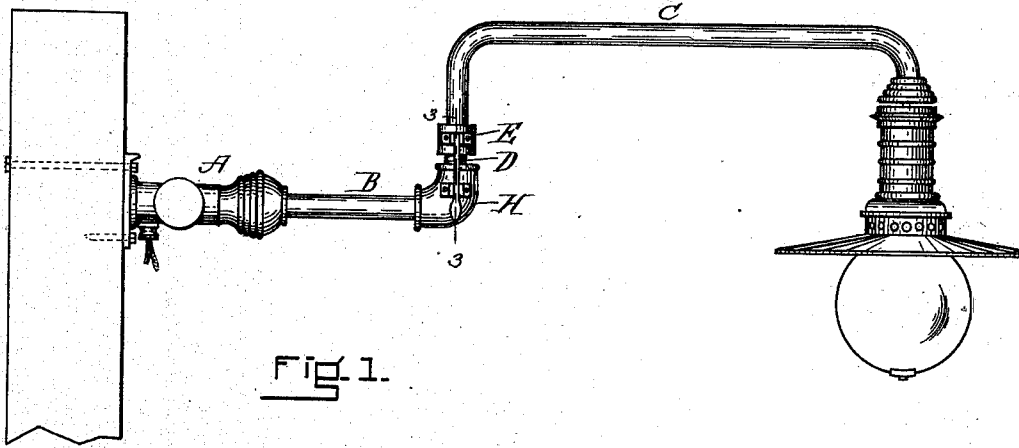


Fig. 1.

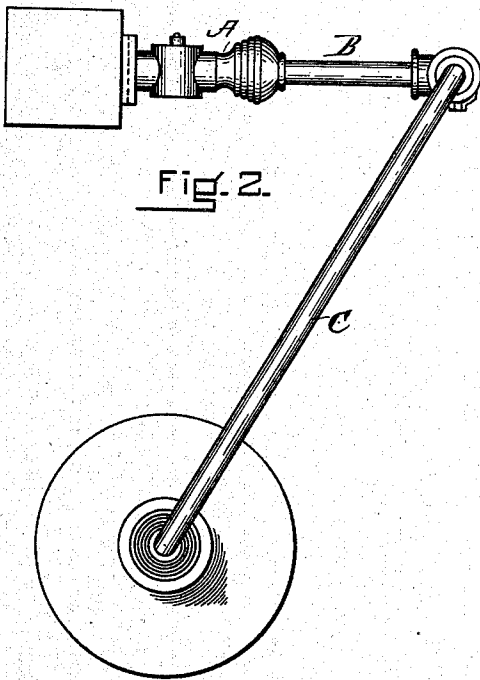


Fig. 2.

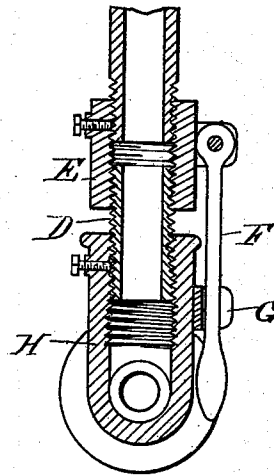


Fig. 3.

WITNESSES.

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SWINGING JOINTED MAST-ARM FIXTURE.

SPECIFICATION forming part of Letters Patent No. 716,333, dated December 16, 1902.

Application filed April 25, 1902. Serial No. 104,660. (No model.)

To all whom it may concern:

Be it known that I, EUGENE N. DAVIS, of Brookline, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Swinging Jointed Mast-Arm Fixtures, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention, as shown by the accompanying drawings, is to provide certain improvements in a mast arm or support for street-lights, especially where arc-lights are used and are obliged to be extended into the street in order that the light may be beyond trees or other obstructions, although by slight modifications they may be adapted to other kind of lights.

At present it is customary to have a long arm or tube projecting from the pole supported by a brace on the top and two side braces to prevent the arm or tube from swinging sidewise. The lamp is supported on this arm and is drawn out by a rope controlled by a windlass and drawn in by flexible cable which is easily broken, in which case it opens the circuit, causing all lamps on that circuit to go out.

I have found the above impracticable for various reasons. First, the man trimming is handling live wires of high voltage, which is very dangerous. The drawing in and out is very noisy. Second, the cable being of stranded wire is easily broken. The rope used for drawing the lamp often breaks, necessitating the use of ladders to make repairs.

I also improve in the appearance of other mast-arms, which are operated by ropes and those suspended from the center of cross-streets by cable, which lower to the ground and which is dangerous to the attendant. In order to overcome this and other defects, I have invented a mast arm or fixture which is noiseless in operating, prevents the jarring of the lamp, and removes all danger to the attendant. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved swinging jointed mast-arm fixture. Fig. 2 is a plan of the same, the outer arm being swung in. Fig. 3 is an enlarged section on line 3 3, Fig. 1.

As the attendant goes up the pole he first turns off a switch or complete cut-off, thus leav-

ing the wires perfectly dead. Then by operating the handle and locking device the lamp may be turned in to the pole, as represented in Fig. 2, so the carbons can be changed.

This swinging arm or fixture consists of a suitable cast-iron base for attaching to the pole by suitable means and containing the cut-out or switch controlling the light, also porcelain tubes through which the line-wires pass to switch on the under side of castings. Beyond the casting is a short pipe or tube B, connecting the casting and an elbow, as shown in Figs. 1 and 2. Connecting into the top side of the elbow is a short nipple, the lower side of which is pinned to the elbow to prevent turning. The upper part of the nipple D, Figs. 1 and 3, is used as a swivel on which the coupling E, the coupling being fast to the nipple-arm, is turned, swinging the outer arm C into the pole, as shown in Fig. 2.

In Fig. 3 I show in section the swinging and locking device. F is a handle, which is free to be turned at any angle to the axes of the swinging joint and is used by the attendant to turn the outer arm into the pole. The latch or fastening G on the elbow H is used for holding this handle and also locks the fixture in position, so that the outer arm cannot turn. In the drawings I have shown only one latch, although it is evident that an additional latch G could be attached to the elbow, so that the arm could be locked in another position.

Having now described my invention, what I claim is—

A joint for a mast-arm, comprising a fixed holding-arm, a screw-nipple rigidly attached to the same; a screw-coupling freely turning on said nipple and having a swinging arm; a handle pivotally attached to said screw-coupling, by the aid of which the said swinging arm may be turned in any direction; a latch-fastening attached to the said fixed arm and adapted to engage with the said handle, whereby the swinging arm may be held in any desired position, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 22d day of April, A. D. 1902.

EUGENE N. DAVIS.

Witnesses:

EDWARD W. BAKER,
THEA DUNBAR.