(No Model.)

# T. DILLON.

## SUSPENSION BAR FOR ELECTRIC LAMPS.

No. 478,275. Patented July 5, 1892.

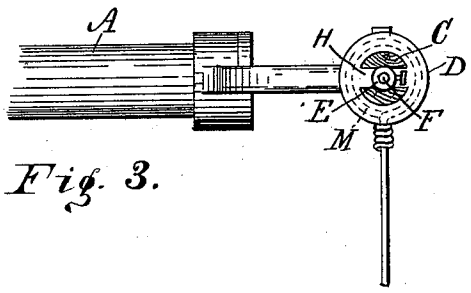



Fig. 3.

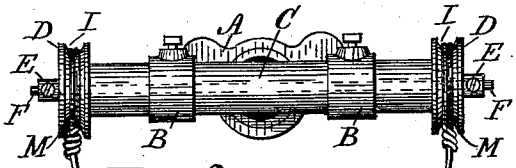



Fig. 2.

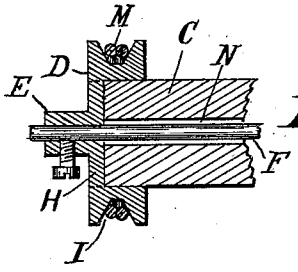
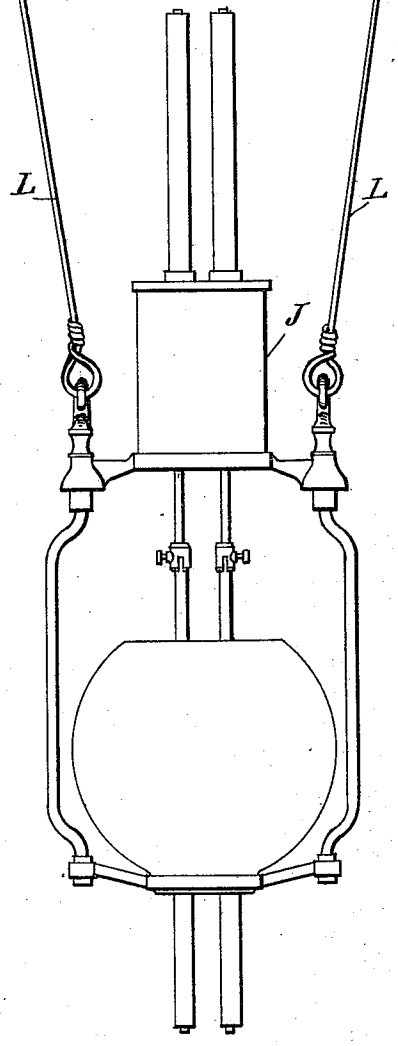



Fig. 4.



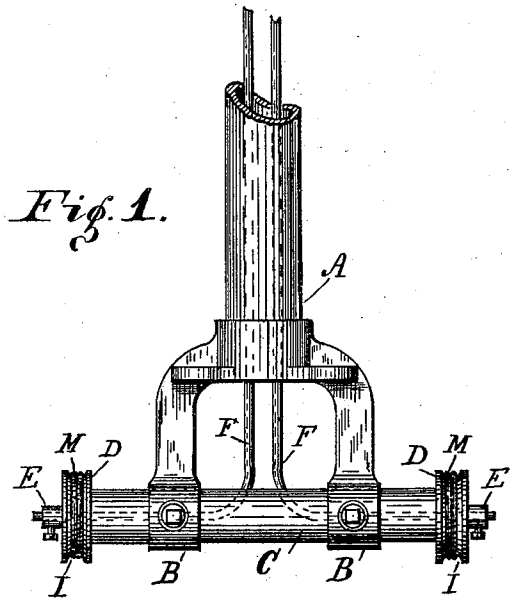




Fig. 1.

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# UNITED STATES PATENT OFFICE.

THOMAS DILLON, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO JOHN CAVEN, OF SAME PLACE.

## SUSPENSION-BAR FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 478,275, dated July 5, 1892.

Application filed April 28, 1892. Serial No. 430,949. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS DILLON, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Suspension-Bars for Electric Lamps, of which the following is a specification.

My invention relates to an improved suspension-bar for electric lamps.

My improvement is designed more particularly for use on swinging mast-arms for electric lamps. It is well known that as electric lamps are usually suspended from a swinging mast-arm they are necessarily connected with the electric conductor in such a manner that the conducting-wire is slightly bent each time that the arm is raised or lowered by the change of the relative positions of the arm and the lamp, and that the conductor is frequently broken thereby. The conductor is also sometimes broken by the swaying of the lamp when suspended from a fixed arm.

The object of my improvement is to provide means for suspending an electric lamp so that the swinging of the lamp shall not operate to bend or flex the conducting-wire with which the lamp is connected.

The accompanying drawings illustrate my invention.

Figure 1 represents a plan of my improved suspension-bar and a portion of its supporting-arm. Fig. 2 represents a front elevation of the same with an electric lamp suspended therefrom. Fig. 3 is a side elevation. Fig. 4 represents, on a larger scale, a longitudinal section of one end of the bar.

In the drawings, A is the supporting-arm, which is preferably tubular, and may be the swinging arm of an electric-light mast-arm or the free end of a fixed arm projecting from a wall or ceiling.

Arm A terminates in a pair of bearings B B, in which is mounted at substantially right angles to the axis of the arm a bar C, of wood or other non-conductor of electricity. Mounted upon the opposite ends of the bar C are a pair of metallic disks D D, each having a central hub E, which constitutes a binding-post to receive the conductor F. Each of the disks is recessed on one side to receive the end of the bar, and is secured thereto so as to prevent turning thereon, preferably by means of a diametrical arm H, which enters a corresponding notch in the end of the bar. Each disk is provided with a circumferential tapering groove I.

The lamp J is suspended from the disks D by means of a pair of conducting-wires L L, each having at its upper end a loop M, formed of one or more turns of the wire and resting in the groove I of the disk, the arrangement being such that while the loops M of the wires L closely embrace the grooved portion of the disks they are free to turn thereon.

In operation the ends of the conductor F, forming the loop or electric circuit with which the lamp is to be connected, are inserted, respectively, in the binding-posts E, which form the hubs of the disks. The conductor F passes, preferably, along the interior of the arm A and along a central longitudinal perforation N in the bar C; but it may extend along the outside of the arm and be connected directly with the binding-posts E without passing through the bar.

The disks D are insulated from each other by the bar C and form parts of the electric conductor, which moves at all times with the arm A without bending.

The wires L, which connect with the opposite sides of the lamp-circuit and form suspending-rods for the lamp, being at all times in close contact with the disks D and being free to turn thereon, the lamp is free to swing and to change its relation to the suspension-bar and the arm in which the suspension-bar is mounted without bending any portion of the conductor.

I claim as my invention—

1. The above-described suspension-bar for electric lamps, consisting of a bar of wood or other non-conducting material and a pair of metallic disks mounted upon the opposite ends of said bar, and each provided with a peripheral groove and a binding-post adapted to receive an electric conductor, substantially as set forth.

2. The combination of the wooden bar, the arm arranged to support said bar, the pair of peripherally-grooved disks secured to the opposite ends of the bar and each provided with a binding-post and forming a part of an electric circuit, the pair of suspending-rods, each having a loop embracing one of said disks, and the lamp suspended from said rods, so as to form an electric circuit therewith, all substantially as and for the purpose set forth.

THOMAS DILLON.

Witnesses:
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