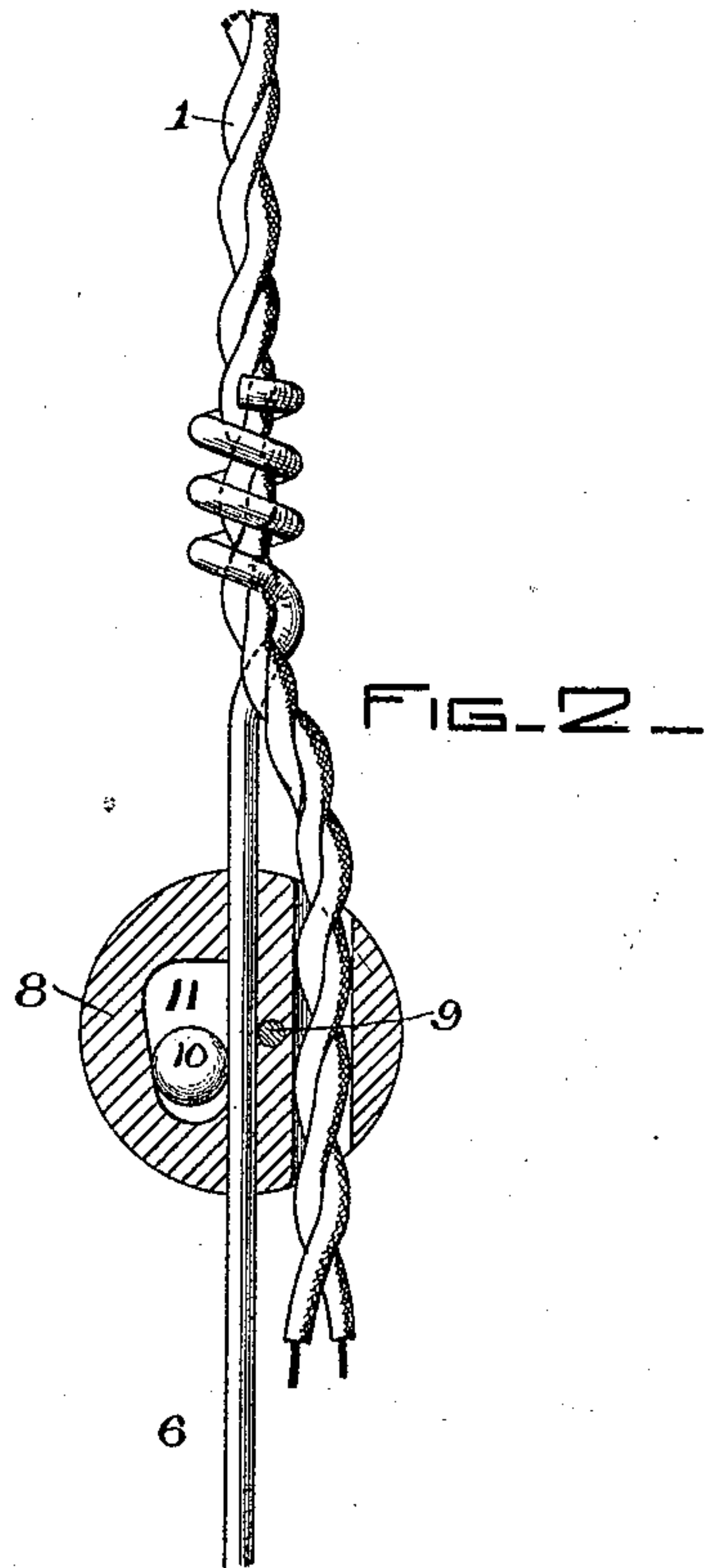
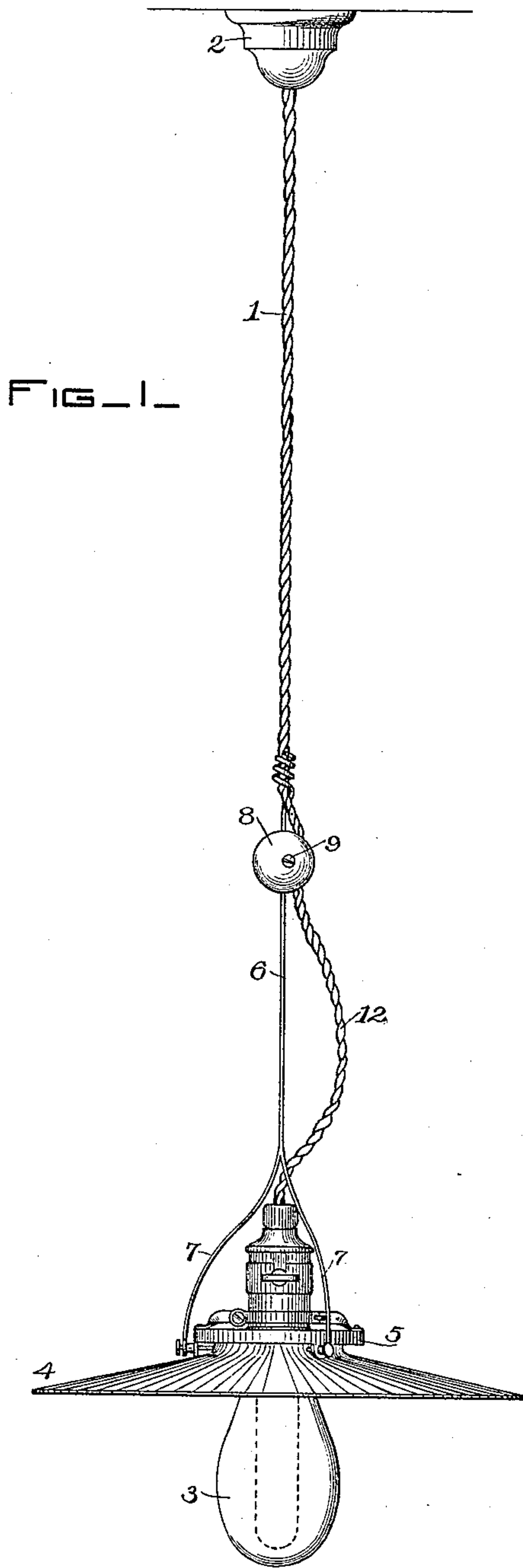


(No Model.)

D. P. THOMSON.
SUSPENDING DEVICE FOR ELECTRIC LAMPS.

No. 451,202.

Patented Apr. 28, 1891.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DAVID P. THOMSON, OF LYNN, MASSACHUSETTS.

SUSPENDING DEVICE FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 451,202, dated April 28, 1891.

Application filed August 1, 1890. Serial No. 360,667. (No model.)

To all whom it may concern:

Be it known that I, DAVID P. THOMSON, of Lynn, Essex county, Massachusetts, have invented a certain new and useful Improvement in a Suspending Device for Incandescent Lamps, of which the following is a specification, reference being made to the accompanying drawings, in which—

Figure 1 is a general view of my suspending device in position, and Fig. 2 is a detailed view of the clutch.

My invention relates to those devices by means of which an incandescent lamp is suspended from the ceiling in such a manner that the lamp can be readily moved up and down, so as to be adjustable to different heights.

The object of my present invention is to make a device of this character of an extremely simple and cheap construction.

It is also the object of this invention to produce such a device as will give the greatest possible freedom of movement without subjecting the insulated conductor-wires to any undue wear.

In the drawings, 1 represents the suspending duplex conducting-cord attached to the ceiling by ceiling-block 2, and connected at its lower end to the incandescent lamp 3.

4 is a shade or globe surrounding the lamp and secured to the same by the usual spider 5.

A steel wire 6, provided with three prongs 7, adapted to engage with the screws or other part of the spider or lamp, is made to pass through the leaden ball 8, which is formed in two parts and clamped onto the conducting-wires by a screw 9, as shown. The steel wire 6 is free to slide loosely through the ball, except as hereinafter specified; but the ball is held securely to the conducting-wire by the screw 9. The upper part of the steel wire is twisted into a helix, as shown, so as to loosely embrace and slide up and down around the conducting-wires.

In order to hold up the weight of the lamp and its shade with the proper amount of friction, I introduce into the ball a clutching device consisting of a ball 10, of rubber or other suitable material, free to move vertically in a wedge-shaped chamber 11. The ball is of such a size with respect to the chamber that it will allow the steel wire to freely rise when the lamp is being pushed up or lifted, and yet

will clamp said wire when the same has a tendency to descend, when it will bind between the said wires and the inclined side of the chamber, so as to hold the steel wire with just sufficient friction to prevent the lamp from falling. The friction is not so great, however, but what the lamp can be easily pulled down when desired.

It will be seen that the part of the conducting-wires 12 between the leaden ball and the lamp takes the form of a loop, and by moving the leaden ball to different points on the conducting-wire the length of this loop can be increased or diminished, so as to vary the possible vertical range of the lamp. The weight of the leaden ball is sufficient to offer the proper inertia so as not to be lifted when the rod is moved upwardly. It may be made of any other material, providing it is of sufficient weight to maintain a suitable position.

The device adds but little weight to the apparatus, is extremely cheap to manufacture, and has a very small element of wear and tear, chiefly because the insulated wire does not form part of the moving mechanism.

Having thus described my invention, what I claim is—

1. An adjustable incandescent-lamp support consisting of a clamp secured to and supported by the flexible conductors by which the lamp is hung, and a stiff rod secured to the lamp and passing through the clamp, by which it is guided and held at any desired position.

2. The combination, with an incandescent electric lamp, of flexible supporting-conductors for the same, a clamp secured to said supporting-conductors and supported thereby, and a rod secured rigidly to the lamp and passing through the clamp, wherein it is held by sufficient friction to support the weight of lamp and rod.

3. The combination of the incandescent lamp and its flexible supporting-cable with means for adjusting the lamp to different heights, said means consisting of a clamp secured to and supported by the cable, and a rod secured to and supporting the lamp, the said rod being frictionally supported by said clamp, so that the rod, though free to slide through the clamp, will be held at any elevation at which it may be set.

4. A suspending device for electric incan-

descent lamps, consisting of flexible conducting-wires, a clamp secured to said wires and supported thereby, a stiff wire or rod connected with the lamp and sliding through
5 said clamp, and a friction-clutch in said clamp adapted to hold the wire or rod at various elevations and offering less resistance to an upward movement of the rod than to a downward movement.

10 5. The combination, with the lamp and the flexible insulated conductors connected there-
with, of a clamp secured to said conductors and a wire or rod secured to the lamp, passing through the clamp, the upper end of said rod encircling the flexible conductors, so as to
15 preserve substantial alignment between the conductors and the rod.

DAVID P. THOMSON.

Witnesses:

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