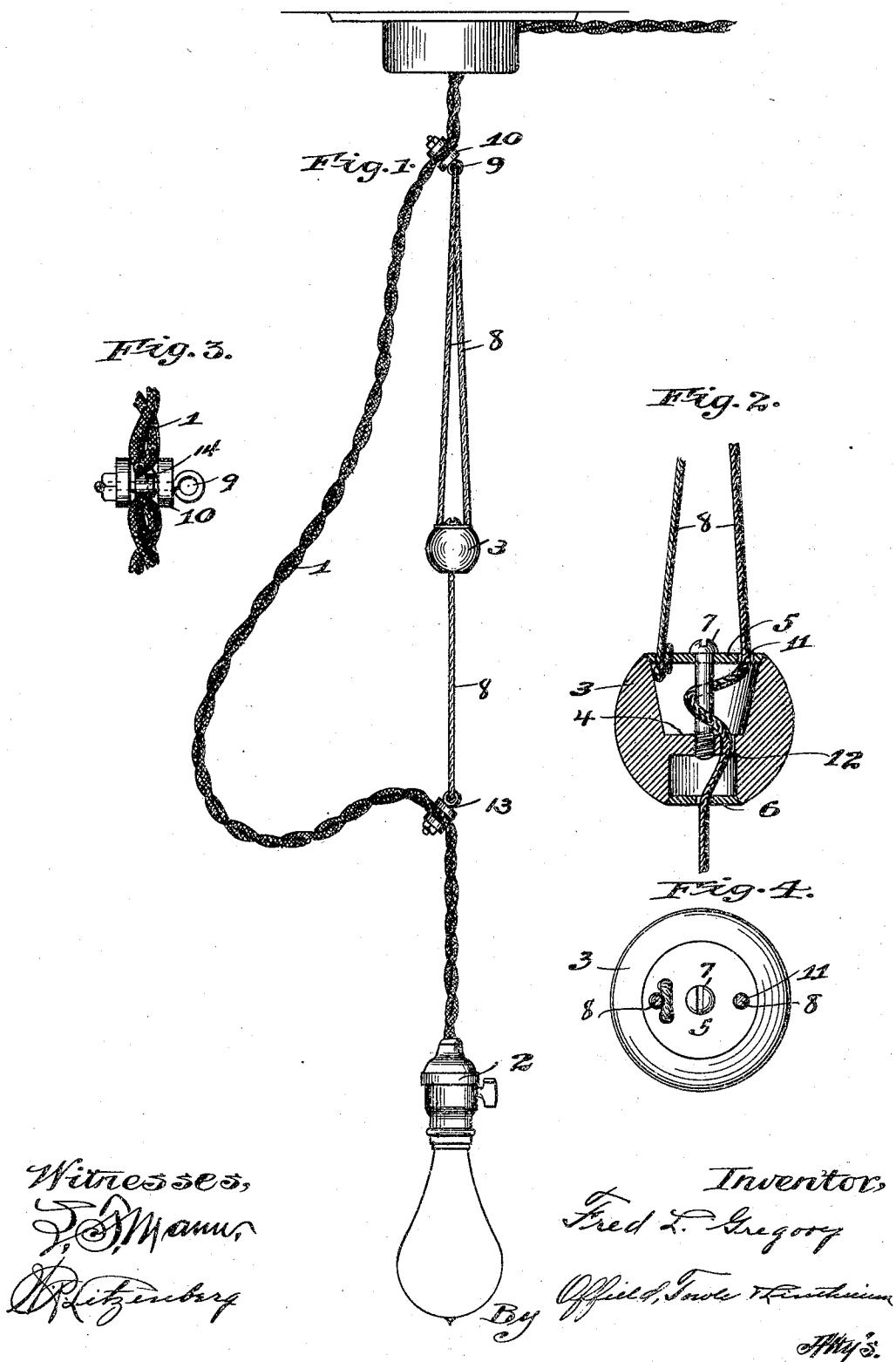


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F. L. GREGORY.
ADJUSTABLE SUSPENSION ATTACHMENT.

APPLICATION FILED MAY 23, 1904.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE SUSPENSION ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 794,671, dated July 11, 1905.

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To all whom it may concern:

Be it known that I, FRED L. GREGORY, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have
 5 invented certain new and useful Improvements in Adjustable Suspension Attachments, of which the following is a specification.

This invention relates to adjustable suspension attachments, and more particularly to an
 10 attachment for desk-lights and the like, where it is often desired to quickly raise or lower the light, although it is applicable to other objects where adjustment is required.

Among the salient objects of the invention
 15 are to provide an extremely simple and cheap device of the character referred to which is complete in itself and capable of convenient manipulation; to provide a device adapted to be attached to the conductor of a suspended
 20 electric lamp or the like at two separated points, the lengthening or shortening of the device between its points of attachment being accomplished wholly by the cord of the device, whereby the wrapping up, abrupt bending, or
 25 rendering of the conductor through guides is avoided; to provide a suspension device in which the attaching-cord renders through a frictional passage in the body of a holding or balancing member, this friction-passa-
 30 ge being disposed spirally through the holding member at an angle to the line of draft, whereby increased weight in itself increases friction; to provide a device of the character referred to in which the frictional hold is automatically
 35 eased upon lifting the object suspended, whereby the take-up action is rendered automatic; to provide means for regulating the tortuosity of the friction-passa-
 40 ge through the holding member, and, in general, to provide a neat, convenient, and practicable suspension attachment of the character referred to.

I am aware that devices for similar purposes have been produced; but they have been more or less complicated and expensive and neces-
 45 sitate a wrapping and wearing of the conductor-cord, with the consequent injury thereto. My invention overcomes these objections and provides an attachment which is complete in

itself and is adapted to be fixedly, although adjustably, connected with the conductor in
 50 such manner as to avoid chafing and torture of the latter.

To the above ends the invention consists in the matters hereinafter set forth and will be readily understood from the following descrip-
 55 tion, reference being had to the accompanying drawings, illustrating one embodiment of the invention, in which—

Figure 1 is an elevation showing the apparatus applied to an electric-light cord. Fig. 60
 2 is a sectional view of a balancing or holding member. Fig. 3 is a full-sized view of one of the attaching-clamps; and Fig. 4 is a top plan view of the holding member.

Referring to the drawings, 1 designates an
 65 electric-light cord or conductor supporting an incandescent lamp 2 in the usual manner.

3 designates a balancing or frictionally-holding member comprising a metal ball with an opening therethrough provided therein
 70 with a horizontal partition 4.

5 and 6 designate, respectively, two disk closures fitted into the ends of said opening, the lower one being conveniently held in place by a driving or frictional fit, while the upper
 75 one constitutes an adjustable member and is held in place by a bolt 7, extending through the upper chamber in the ball and screwed into the partition 4, said bolt constituting an axially-extending part in the body in the man-
 80 ner indicated in Figs. 2 and 4.

8 designates an adjusting-cord secured at one end in any desirable manner to one side of the disk closure 5, passed upwardly through an eyelet 9 in a clamping member 10, thence
 85 returned and passed through an aperture 11 at the opposite side of said disk 5, through an aperture 12 in the partition 4, and out through an aperture in the center of the end closure 6, the lower end of said cord being
 90 attached to a second clamping member 13. Said clamping members 10 and 13 comprise a pair of disks of any suitable insulating material, such as hard rubber, adjustably coupled together by the screw-eye 9, which passes
 95 between the strands of the conductor 1, said

screw-eye constituting a bearing through which said cord works. An insulating collar or sleeve 14 may be placed upon said screw between the strands of the conductor 1, if desired. The device can be thus easily and quickly clamped to the conductor-wire of an electric lamp without tools or alteration of the conductor-support.

The balancing or holding member 3 will not ordinarily be of sufficient weight in itself to counterbalance the lamp 2, and in order that said member may have a frictional hold upon the cord the latter is after passing through the aperture 11 of the disk 5 carried around the body of the bolt 7 one or more times and then passed through the aperture 12, thereby compelling the cord to pursue a tortuous path in passing through the ball 3. In order to adjust the frictional tension, the bolt 7 may be loosened slightly, so as to release the upper disk, and the ball member then rotated relatively to the disk until the cord has been wrapped around the bolt to the required extent. Less than one complete turn around the bolt will ordinarily be found sufficient.

The suspension device may be lowered by simply pulling down upon the lower end of the cord 8 hard enough to overcome the frictional grip of the holding member and its weight. Upon lifting the lamp the tension of that portion of the cord passing tortuously through the holding member is released, and the ball descends by its own gravity, thus automatically taking up the cord.

While I have shown and described only one form of balancing or holding member and only one form of attachment, it is obvious that alterations and modifications can be made in the details of construction and arrangement without departing from the spirit of the invention, and I do not, therefore, limit the invention to the details and arrangement shown, except in so far as such details have been made the subject-matter of specific claims.

I claim—

1. In a suspension device of the character referred to, the combination of two main members adjustably secured together and adapted to be adjusted by bodily-rotative angular movement relatively to each other, guide-passages formed through said device, an intermediate friction guide-support interposed between the outer ends of said guide-passages, and a suspension-cord threaded through said guide-passages and engaging said friction guide-support, whereby rotative angular adjustment of one main part relatively to the other increases or decreases the tortuosity of that part of the cord passing through the device.

2. In a suspension device of the character referred to, the combination of two main members adjustably secured together and adapted to be adjusted by bodily-rotative angular movement relatively to each other, each of said members being provided with a guide-passage, an intermediate friction guide-support interposed between said guide-passages, and a suspension-cord threaded through the guide-passages and engaging said friction guide-support as and for the purpose set forth.

3. In a device of the character described, a frictionally-holding member comprising a body having an axially-extending part between its ends, and a second member adjustably secured thereto and capable of rotative adjustment thereon, an inlet-passage located in one end eccentrically of said axially-extending part, an exit-opening in the opposite end and a cord attached at one end to said body, returned upon itself and threaded through the inlet-passage thence around the axially-extending part and out through the exit-opening.

4. In a device of the character described, a frictionally-holding member comprising a body having an axially-extending part between its ends, an end closure having rotatable connection with said axially-extending part, an inlet-passage formed through said end closure eccentrically of its axis of rotation, an exit-opening in the end of said body opposite having said end closure, and a cord attached at one end to the body, returned upon itself and threaded through the inlet-passage, thence around the axially-extending part and out through the exit-opening.

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Witnesses:

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