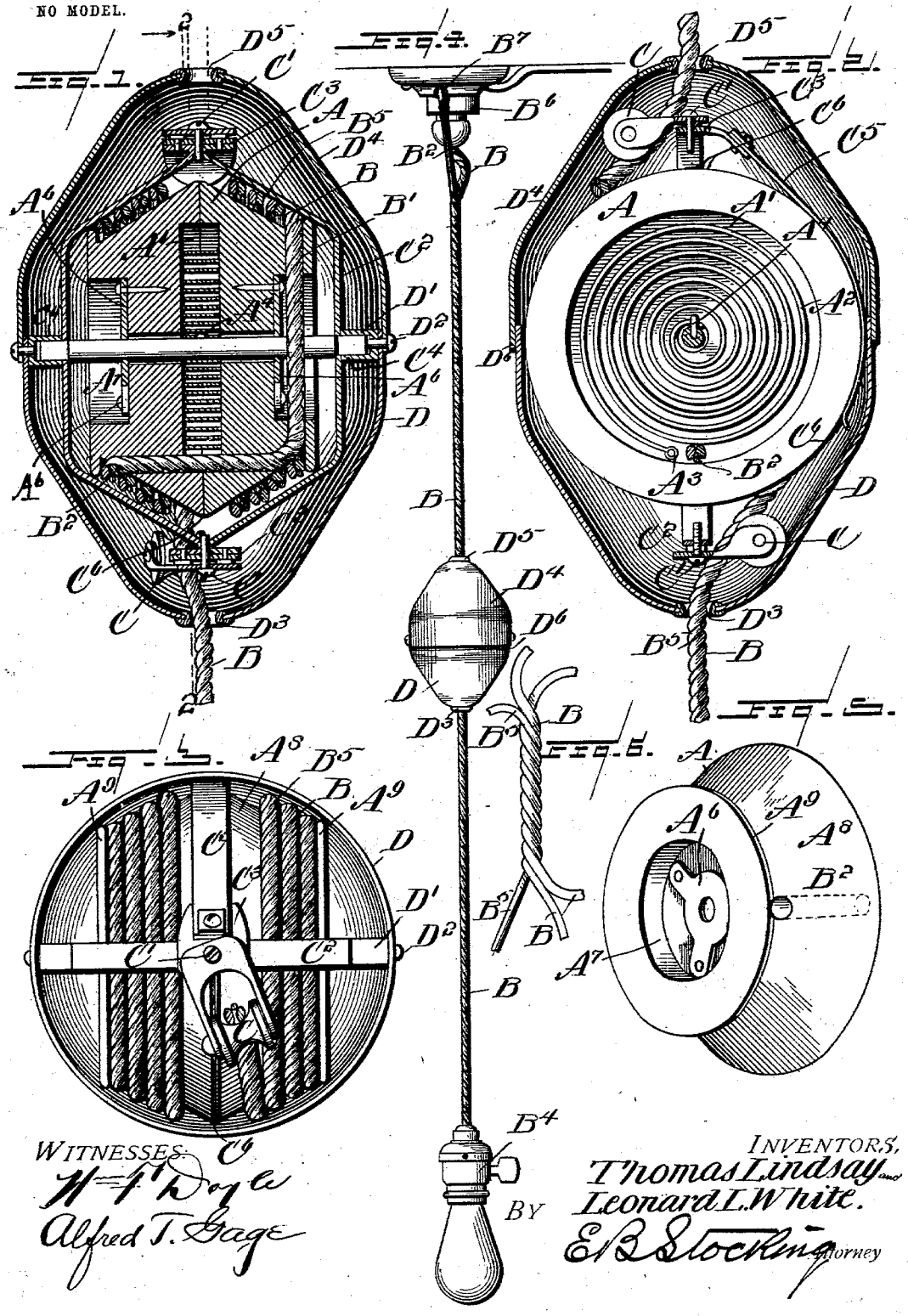
No. 745,633. PATENTED DEC. 1, 1903.

T. LINDSAY & L. L. WHITE.

LAMP HANGER.

APPLICATION FILED FEB. 10, 1903.

NO MODEL.



WITNESSES:
H. F. Dorr
Alfred T. Gage

INVENTORS,
Thomas Lindsay and
Leonard L. White.
BY
E. B. Stocking
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 745,633. Patented December 1, 1903.

UNITED STATES PATENT OFFICE.

THOMAS LINDSAY AND LEONARD L. WHITE, OF WILMERDING, PENNSYLVANIA.

LAMP-HANGER.

SPECIFICATION forming part of Letters Patent No. 745,633, dated December 1, 1903.

Application filed February 10, 1903. Serial No. 142,704. (No model.)

To all whom it may concern:

Be it known that we, THOMAS LINDSAY and LEONARD L. WHITE, citizens of the United States, residing at Wilmerding, in the county of Allegheny, State of Pennsylvania, have invented certain new and useful Improvements in Lamp-Hangers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a lamp-hanger, and particularly to a construction embodying a spring-drum upon which the supporting-cable for the lamp is adapted to be wound.

The invention has for an object to improve the construction of this drum and also of the manner of mounting the casing upon the same, so that the cable when wound thereon will be retained in proper position to prevent twisting or interference of one strand with another.

A further object of the invention is to provide a pivotally-mounted guide-roller above and below the drum, so as to convey the cable into proper alinement as it is successively wound upon the drum.

Another object of the invention is to provide an auxiliary supporting-cable independent of the ordinary conducting-wire for an electric lamp, but extending with said wire around the winding-drum to the lamp, thus removing the strain from the conducting-wire when the weight of the lamp and hanger is too great to be safely borne thereby.

Other and further objects and advantages of the invention will be hereinafter set forth, and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is a central vertical section through the hanger; Fig. 2, a similar view upon the line 2 2 of Fig. 1 and at a right angle thereto; Fig. 3, a plan with the top casing removed; Fig. 4, an elevation showing the hanger and lamp supported by an independent cable from the conducting-wire; Fig. 5, a detail perspective of one section of the drum, and Fig. 6 a similar view of the auxiliary cable wound with the strands of the conducting-wires.

Like letters of reference refer to like parts in the several figures of the drawings.

The letter A indicates a winding-drum, preferably formed in two sections, each provided upon one face with a spring-receiving recess A′, within which the coiled spring A^2 is disposed, one end thereof being secured to the wall of the drum, as at A^3, while the opposite end is secured at A^4 to the supporting-shaft A^5. This shaft supports the drum by means of bearing-plates A^6, disposed against the outer faces of the drum and within the recesses A^7 there provided. The periphery of the drum is formed with an inclined winding-surface A^8, having at its outer edge a retaining-flange A^9, and the two sections of the drum when joined form a structure conical in cross-section, upon one face of which the cable from below the hanger is wound and upon the opposite surface the upper cable.

The cable B is adapted to pass downward through an aperture B′ in one section of the drum, thence laterally through an aperture B^2 to the opposite side thereof, said apertures having their openings upon the periphery of the drum at the lowest portion of the inclined surface A^8 thereof, whereby the winding of the cord extends spirally upward upon the inclined surface and the windings slip downward upon one another, so as to closely nest and form an even and continuous winding upon the drum. For the purpose of guiding the cable in its winding movement guide-rollers C are pivotally mounted at C′ above and below the drum—for instance, on the yokes C^2, which surround the drum—and are secured together by a plate C^3, through which the pivot C′ of the frame carrying the guide-rollers C passes. The sides of this yoke are also provided with angular bearing-recesses C^4 to retain the shaft A^5 against rotation. This yoke also carries a friction-spring C^5, which extends concentric with the apex of the cone formed by the two sections of the drum, so as to bear thereon and determine the speed of rotation of the drum, a suitable bearing-surface C^6 being provided upon the periphery of the drum for this purpose.

The winding-drum is inclosed within a casing formed of an upper and lower section supported from the shaft of the drum. The lower section D is provided with bearing-boxes D' at its upper portion secured thereto by suitable set-screws D^2 and adapted to receive the ends of the drum-axle A^5, while the lower portion of the casing D is provided with the usual opening D^3 for the passage of the conducting-cord B. The upper section D^4 is formed at its upper end with an opening D^5 and at its lower open end D^6 is fitted over the upper portion of the lower section and adapted to fit around the screws D^2, and thus be held against rotation. By thus mounting the shell or casing the weight is borne by the axle and removed from the ends of the yoke within which the drum is carried.

The conducting-cable B, as herein shown, is composed of two strands twisted together as usual for supporting incandescent lamps, such as indicated at B^4, while twisted with these strands of conducting-cord is an independent supporting-cable B^5, which extends for the length of the conducting-cord from the ordinary fuse-box B^6 to the lamp B^4. This cable may be of any desired material of a flexible character and is secured at its upper end to a fixed support B^7, from which the weight of the hanger and lamp is borne, thus relieving the conducting-cord of the strain thereof. This supporting-cable may be of small diameter and wound between the strands of the conducting-cord, so as not to increase the diameter of the cable upon the drum.

In the operation of the invention it will be seen that as the lamp is raised or lowered the cord is wound upon or unwound from the drum in equal amounts from each side thereof, while the arrangement of the inclined surface to the drum with the pivoted guide-roller secures an accurate winding in a spiral path upon the surface of the drum. The independent supporting-cable removes the strain from the conducting-cord, as hereinbefore explained, while the mounting of the casing or shell upon the axle of the drum supports the same in the most desirable manner to prevent interference with the feed of the supporting-cable. It will be obvious, however, that the form of this casing may be altered and changes made in the details of construction and configuration of the invention without departing from the spirit of the same as defined by the appended claims.

Having described our invention and set forth its merits, what we claim, and desire to secure by Letters Patent, is—

1. In a lamp-hanger, a winding-drum having its periphery inclined in opposite directions and provided with a lateral aperture extending between the opposite lower portions of the inclined periphery, a supporting-cable extending through said aperture and adapted to be wound upon said drum from opposite lower portions upwardly toward the center thereof, and guide-rollers having frames pivotally mounted at the apex of the drum and upon the opposite sides thereof.

2. In a lamp-hanger, a winding-drum having its periphery inclined in opposite directions, a supporting-cable adapted to be wound upon said drum and guide-rollers pivotally mounted in pivoted frames at opposite sides of said drum to swing in a plane parallel with the axis thereof to direct said cable into place upon the periphery of the drum.

3. In a lamp-hanger, a winding-drum having its periphery inclined in opposite directions, a supporting-cable adapted to be wound upon said drum, guide-rollers pivotally mounted in pivoted frames at opposite sides of said drum to swing in a plane parallel with the axis thereof to direct said cable into place upon the periphery of the drum, a yoke supported from the axle of the drum upon which the frames of said guide-rollers are mounted, and a friction-spring adapted to bear upon the periphery of the drum.

4. In a lamp-hanger, a winding-drum having its periphery inclined in opposite directions, a supporting-cable adapted to be wound upon said drum from opposite lower portions upwardly toward the center thereof, guide-rollers pivotally mounted in pivoted frames at opposite sides of said drum to swing in a plane parallel with the axis thereof to direct said cable into place upon the periphery of the drum, a yoke supported from the axle of the drum upon which the frames of said guide-rollers are mounted, a friction-spring adapted to bear upon the periphery of the drum, a casing for said drum, and bearing-boxes carried by the interior of said casing to surround the ends of the axle of the drum.

5. In a lamp-hanger, a winding-drum composed of opposite sections provided upon one face with a spring-recess and having an outer inclined periphery, a supporting-shaft for said drum, a spring within said recess secured at one end to the drum and at its opposite end to said shaft, a bearing-plate carried upon a face of each section of the drum and resting upon said shaft, and retaining-flanges at the lower portion of the inclined faces of the drum-sections.

6. In a lamp-hanger, a winding-drum having oppositely-inclined faces thereon and retaining-flanges at the lower portions thereof, a yoke surrounding said drum, guide-rollers at opposite sides of the yoke above the apex of said inclined portions, and a supporting-cable passing through said drum from the lower portion of one inclined face to the lower portion of the opposite inclined face.

7. In a lamp-hanger, a winding-drum having oppositely-inclined faces thereon and retaining-flanges at the lower portions thereof, a yoke surrounding said drum, guide-rollers mounted in pivoted frames at opposite sides of the yoke above the apex of said inclined

portions, a supporting-cable passing through said drum from the lower portion of one inclined face to the lower portion of the opposite inclined face, a friction-spring supported by the yoke and adapted to bear upon the apex of said drum, and a casing surrounding said drum.

In testimony whereof we affix our signatures in presence of two witnesses.

THOMAS LINDSAY.
LEONARD L. WHITE.

Witnesses:
J. C. FOREMAN,
MARTIN STARK.