No. 859,398. PATENTED JULY 9, 1907.

E. E. MARSH.

INCANDESCENT LAMP HOLDER.

APPLICATION FILED APR. 24, 1905.

Fig. 1.

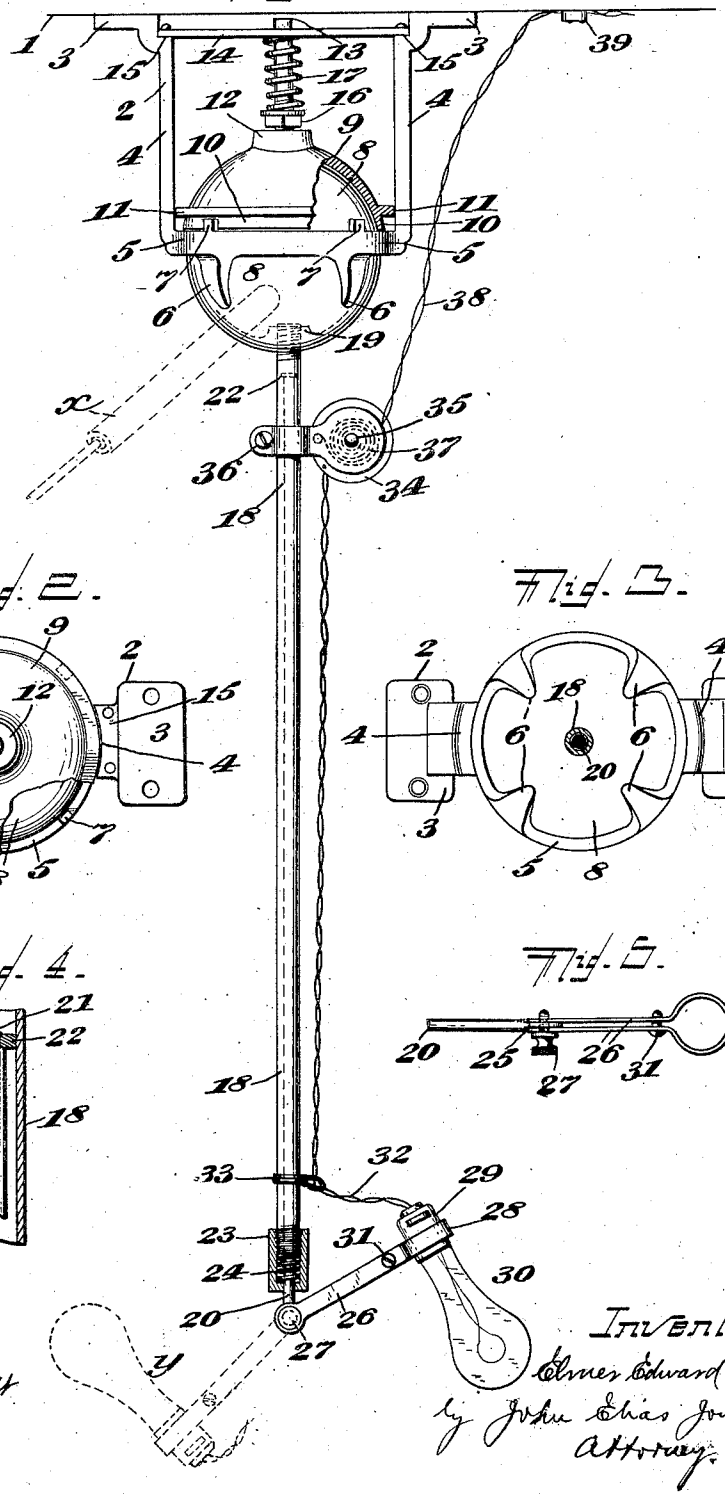


Fig. 2.

Fig. 3.

Fig. 4.

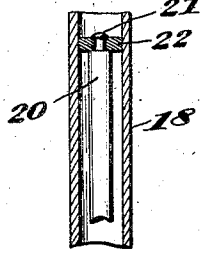


Fig. 5.

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INCANDESCENT-LAMP HOLDER.

No. 859,398. Specification of Letters Patent. Patented July 9, 1907.

Application filed April 24, 1905. Serial No. 257,177.

To all whom it may concern:

Be it known that I, ELMER EDWARD MARSH, a citizen of the United States of America, and a resident of Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Incandescent-Lamp Holders, of which the following is a specification.

This invention relates to certain improvements in that class of holders which are especially designed for use in connection with incandescent electric-lamps and which permit of adjustment to accommodate different positions in which it is desirable to hold the lamp for use, and the object of the invention is to provide a holder of this general character of an improved and simplified construction whereby the lamp may be more conveniently and readily adjusted in various desired positions for use and, also, securely held against accidental displacement when the desired adjustment has once been effected.

The invention consists in certain novel features of the construction, combination and arrangement of the several parts of the improved lamp-holder, whereby certain important advantages are attained and the device is rendered simpler, cheaper and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings which serve to illustrate my invention—Figure 1 is a front elevation of the improved lamp-holder, certain parts thereof being broken away and shown in section for more clearly illustrative purposes as will be hereinafter explained; Fig. 2 is a partial top or plan view of the improved lamp-holder detached from its supporting-surface; Fig. 3 is a transverse section and bottom plan view taken through the adjustable stem of the holder and looking upward for illustration of the universal-connection of the upper end of said stem; Fig. 4 is an enlarged partial section taken axially through the adjustable stem and showing the arrangement for guiding the end of the inclosed telescopic-extension thereof; and Fig. 5 is a detached, fragmentary detail view of the lamp-socket clamp or clip at the lower end of the adjustable stem of the holder.

In these views, 1 indicates a ceiling, wall or other supporting-surface to which the improved lamp-holder is attached for use and 2 indicates, as a whole, a pendent bracket formed from metal with lugs 3, 3 at opposite sides for screw-attachment to said supporting-surface, said bracket 2 being constructed with pendent or downwardly-extended parallel and spaced arms or side-bars 4, 4, the lower ends of which are integrally-connected with opposite sides of a ring or annular portion 5 which has pendent or downwardly-extended and inwardly-curved arms or projections 6, 6 arranged at intervals around it, there being, as herein shown, four of said arms 6, 6, although it is evident any desired number may be employed.

The arms 6, 6 are integral with the ring or annular part 5 and upon the upper edge of said part 5 there are produced other similarly spaced but upright lugs or projections 7, 7, which are, however, of less length than the arms 6. The ring or annular part 5 forms a circular bearing-member wherein is held for universal movement a hollow ball or sphere 8 connected, as will be presently explained, with the upper end of the adjustable rod or stem of the holder, and the inward curvature of the lower arms 6, 6 of the ring 5 is sufficient to securely hold said sphere 8 suspended within said ring 5 while permitting free movement thereof in various directions within the ring.

9 indicates a frictional bearing-member of inverted cup-like or hollow, hemi-spherical form and within whose under convexity is adapted to snugly fit and turn the spherical upper surface of the ball 8, and said member 9 has around its lower edge portion a depending flange or skirt 10 adapted to take inside the upright spaced lugs 7, 7 on the top of ring 5, in such way as to prevent lateral displacement of the frictional-member 9 from the underlying ball 8 during the various movements necessary for said ball in the adjustment of the improved holder. The frictional bearing-member 9 is also provided with an edge flange or horizontal portion 11 outside the pendent flange or skirt 10, and said edge flange 11 is adapted, at diametrically opposite points, for engagement with the sides 4, 4 of the bracket 2 to further hold member 9 against dislocation.

The bearing-member 9 has at its upper part a central socket or seat 12 wherewith the lower end of a short, vertical stem or pin 13 has screw-connection, the upper end of said stem 13 being loosely movable in a vertical direction in an opening centrally formed in a yoke or strap 14 extended across between seats or shoulders 15, 15 produced at the upper ends of the vertical side-bars 4, 4 of the bracket 2.

16 is a nut having screw-adjustment upon the lower threaded end of stem 13, and 17 is a spring coiled on said stem 13 between the nut 16 and the strap or yoke 14 with its tension exerted on the nut in such a way as to hold the member 9 closely pressed in frictional-engagement upon the spherical top surface of the ball 8. By turning the nut 16, the spring-tension may evidently be varied for causing the member 9 to bear with greater or less force upon the said ball 8.

18 indicates the outer main member or sleeve comprised in the adjustable rod or lamp-holding stem of the improved holder, and the upper end of said sleeve

or member 18 has threaded-engagement, as indicated at 19 in dotted-lines in Fig. 1, with the lower central part of the ball 8 so that the holding rod or stem is caused to depend below the bracket 2.

20 indicates the interior telescopic-member of the adjustable holding rod or stem, and this inner member is of a diameter less than the bore of the sleeve 18 so as to permit of being slid upwards in said bore in the position seen in dotted-lines in Fig. 1, so that the holder rod or stem may be thereby shortened, a reverse sliding-movement of the inner member 20 serving for its withdrawal from the lower end of sleeve 18 in lengthening said holder rod or stem.

The upper end of the inner member 20 has a reduced part 21 on which is held a leather or other washer 22 adapted to prevent lateral play of the inner member within the larger bore of sleeve 18 without impeding the movement of said inner member in lengthening and shortening the holder rod or stem and the lower end of said inner member 20 is extended down below the lower end of sleeve 18 through a perforated cap 23 screwed on sleeve 18, a spring 24 being coiled on the inner member 20 within the hollow of the cap with its turns or spirals arranged to frictionally bear on the said inner member 20 to frictionally impede the sliding-movement thereof within sleeve 18. The upper end of said spring 24 bears on the extremity of sleeve 18 and when the screw-cap 23 is turned, a certain adjustment of said spring will be effected whereby it may be caused to bear on the inner member 20 with greater or less tension so that more or less force will be necessary for withdrawing the member 20 from sleeve 18 or sliding said member within said sleeve in the longitudinal adjustment of said parts for lengthening and shortening the stem of the holder.

The lower extremity 25 of the inner stem-member 20 is perforated for the passage of a clamping-screw 27 as seen in Figs. 1 and 5 and by means of said screw 27, clamping-arms 26, 26 are held to opposite sides of said lower perforated end 25 of said inner member 20, the arrangement being such that when said screw 27 is loosened, the clamping-arms may be adjusted pivotally upon the said member 20 as indicated in dotted-lines at *y* in Fig. 1 and when any such adjustment desired has been effected, said screw 27 may be again tightened to hold the parts locked in position. The rod 20 may also be rotated in the sleeve 18 for facilitating such adjustment, and the universal connection afforded by the construction at the upper end of the stem above described permits the adjustment of said stem at any desired angle as indicated in dotted-lines at *x* in Fig. 1, the frictional-engagement of bearing-member 9 with ball 8 serving to hold the holder-stem in the desired adjusted position as will be readily understood.

The clamping-arms 26, 26 constitute a clamp or clip by means of which an incandescent lamp 30 is supported at the lower end of the holder-stem and for this purpose, said arms 26 have reversely-curved end portions 28, 28 connected by a set-screw 31 and adapted for clamping-engagement on opposite sides of the lamp-socket 29, the screw 31 being adapted to be turned to permit the socket to be tightly gripped between the jaws 28 of the clamp.

32 indicates the conductors extended from the lamp-socket 29 through a loop or eye 33 at the lower end of sleeve 18, whence said conductors are extended up parallel and alongside the sleeve 18 to a spool or reel 34 whereon they are adapted to be wound. The spool or reel 34 turns on a stud or shaft 35 journaled in a clip 36 on the upper part of sleeve 18, and 37 indicates a coil-spring of sufficient strength, one end of which is connected with the said shaft or stud 35 while its opposite end has connection with the clip 36, the tension of said spring being exerted to wind up the conductors 32 upon the spool or reel 34 so as to prevent sagging of the conductors when the holder-stem is shortened. 38 indicates the portion of the conductors extended from the spool or reel 34 to an insulator 39 at the ceiling or other supporting-surface 1.

The improved lamp-holder constructed according to my invention is of an extremely simple and inexpensive nature and is especially well adapted for use by reason of the ease and convenience with which the lamp may be adjusted in any desired position and also of the security with which the lamp is held against displacement when in adjusted position, the spring-tension devices provided at the upper and lower ends of the sleeve serving to effectively counterbalance the weight of the lamp and of the several parts of the holder and being capable of ready adjustment in order that looseness resulting from wear or careless handling of the device may be readily taken up.

I claim:—

1. A device of the character described, comprising a supporting bracket having adjacent one end thereof an open circular bearing member and adjacent the other end thereof a cross-bar with a central opening therethrough, a spherical member adjustably positioned in the bearing member, a hemispherical shell member positioned in said bracket and adapted to frictionally engage said spherical member and having an external circumferential flange adjacent the edge thereof, a stem adapted to engage said hemispherical shell with one of its ends and said opening in said cross-bar with its other end, a spring carried by said stem, a series of projections carried by said bearing member and adapted to engage the edge of said hemispherical member, and a lamp-holder stem carried by said spherical member.

2. A device of the character described, comprising a supporting bracket having adjacent one end thereof a circular bearing member provided with a series of spaced upturned projections and a series of pendent arms, a spherical body seated loosely within said circular bearing member and engaged by said pendent arms, a frictional member having a concave surface fitting over said spherical member and having a skirt-like flange adapted to engage the inner faces of said upturned projections, elastic means for maintaining the engagement of said frictional member with said spherical member, and a lamp-holder rod carried by said spherical member.

3. A device of the character described, comprising a bracket having an open, circular bearing member, a spherical member loosely seated in said bearing member and having a lamp-holder rod projecting therefrom, a frictional member having a concave surface fitting over said spherical member, a pin having one end in sliding engagement with an orificed cross-bar on said bracket and having its other end in adjustable engagement with said frictional member, a nut on said pin, and a spring coiled on said pin and engaging said nut at one end and said cross-bar on said bracket at its other end.

Signed at Cincinnati, Ohio, this 21st day of April, 1905.

ELMER EDWARD MARSH.

Witnesses:

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