R. M. DIXON.

FASTENING MEANS.

APPLICATION FILED AUG. 29, 1907.

**966,176.** Patented Aug. 2, 1910.

Fig. 1

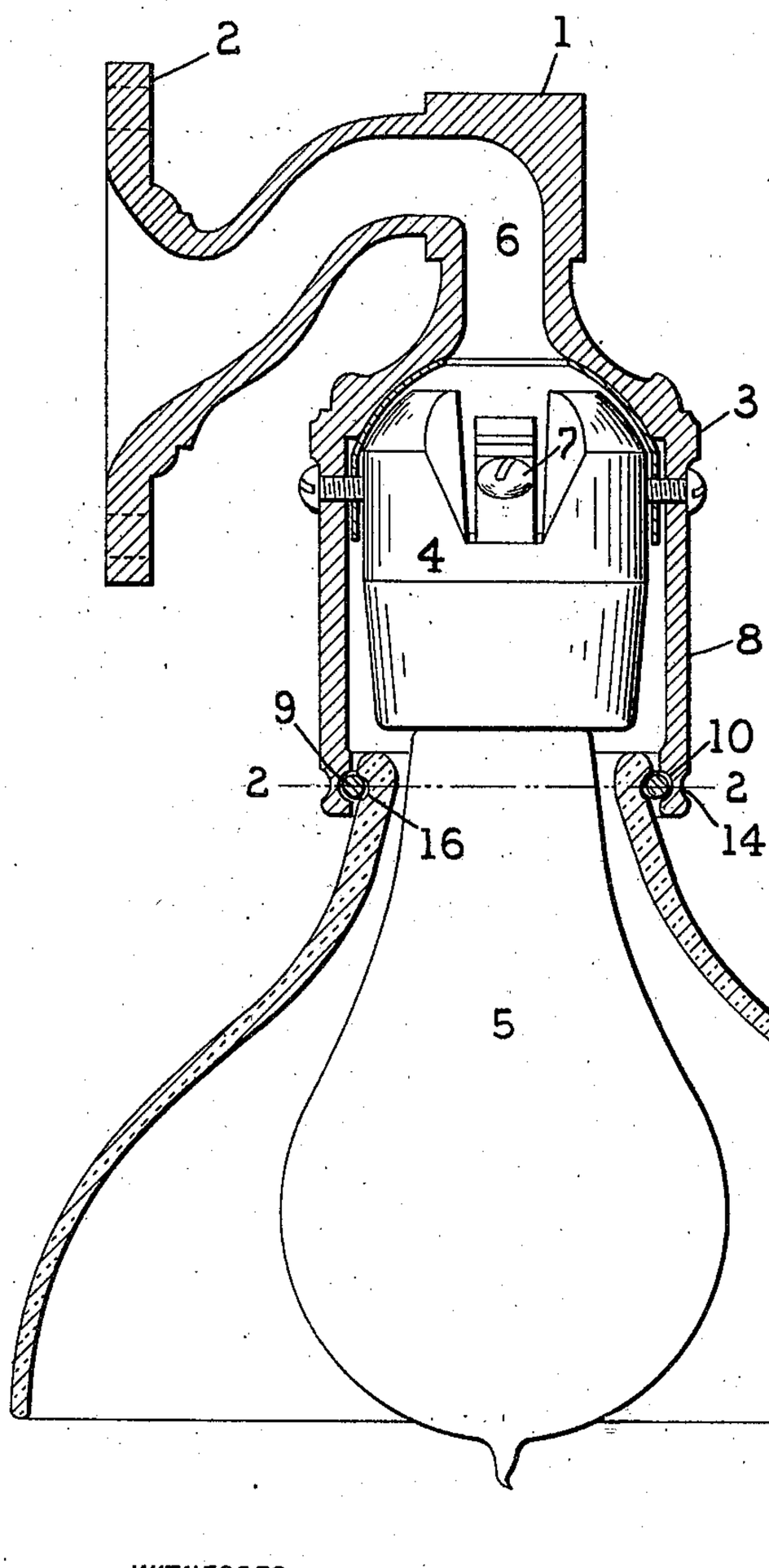



Fig. 3

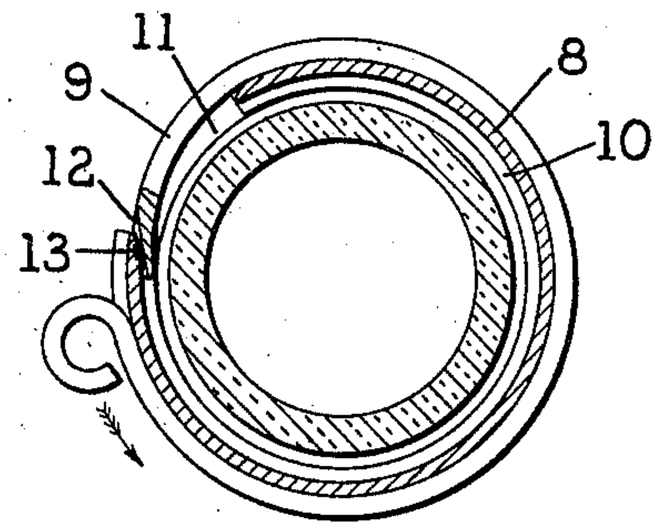
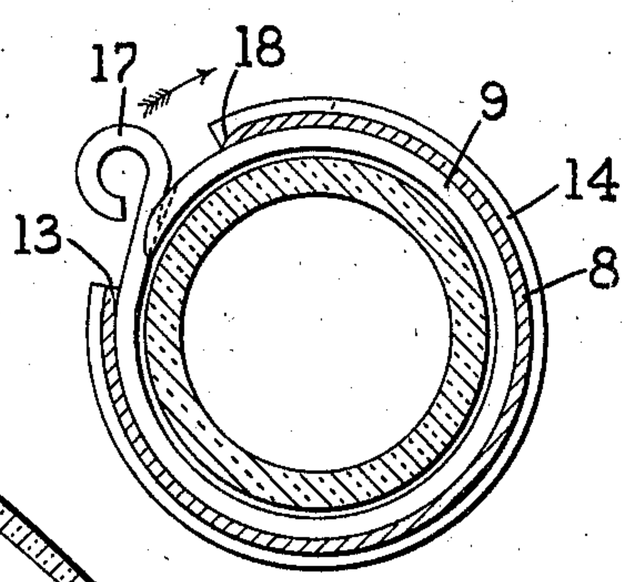



Fig. 2

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# UNITED STATES PATENT OFFICE.

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## FASTENING MEANS.

966,176. Specification of Letters Patent. Patented Aug. 2, 1910.

Application filed August 29, 1907. Serial No. 390,607.

*To all whom it may concern:*

Be it known that I, ROBERT M. DIXON, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Fastening Means, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in fastening devices, but inasmuch as many of its characteristic advantages prominently appear in its embodiment as a shade holder for illuminating devices, it will be conducive to clearness to disclose this invention in such relation.

This invention has in view among other objects the provision of a shade holder which, structurally considered, will be of the greatest possible simplicity and compactness and be composed of but few parts all of which may be manufactured at a minimum of cost.

This invention also contemplates a shade holder which will in practical usage possess great durability and positiveness of action and which may be operated with the greatest ease for the purpose of renewing shades.

A further object of this invention is to devise a shade holder which will be sightly in appearance, being free from undesirable projecting parts such as screws or the like, and which will rigidly and firmly retain the shade in place without being loosened by vibrations such as those common to railroad cars when traveling.

Other objects and advantages will be in part obvious from the annexed drawings, and in part pointed out in the following description.

This invention accordingly consists in the features of construction, combinations of elements and arrangements of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the following claims.

In order that this invention may be the more fully understood and made comprehensible to others skilled in its relating arts, drawings illustrating one of the several possible utilizations of the same are appended as a part of this disclosure and, while the characteristic features and principles of this invention may be otherwise applied by modification falling within the intended scope of the claims, the herein disclosed embodiment may be advantageously resorted to in practice and is regarded as representing substantial improvements over many of the seeming equivalents of this invention.

In the accompanying drawings, corresponding parts are similarly referred to by like characters of reference throughout all the figures of which;

Figure 1 is a vertical section partly in elevation showing an electric bracket lamp embodying this invention and showing a shade secured to a supporting member through the agency of an interlocking ring of the character proposed by this invention. Fig. 2 is a horizontal section taken through line 2—2 of Fig. 1 showing the ring in its interlocking relation with respect to the shade and the supporting member. Fig. 3 is a sectional view of the parts shown by Fig. 2 and in which the securing ring has been rotated out of engagement with the shade to enable the latter to be removed.

Continuing now with a more detailed description of the herein disclosed embodiment of this invention, with such occasional reference to the appended drawings as may afford a clear comprehension of the same, 1 denotes the body portion of a bracket adapted for use in connection with electric lamps. This bracket may comprise a wall portion 2 whereby it may be secured to a wall and a lamp socket receiving portion 3 within which may be mounted the lamp socket 4 adapted to receive the bulb 5. Such bracket will ordinarily provide a channel such as that denoted by 6 for enabling the electric feed wires to be led to the terminals 7 of the socket in the usual manner.

The shade supporting member or portion 8 may, of course, constitute an integral part of the bracket or it may be detachably carried by the bracket or otherwise as occasion may dictate. This supporting member 8 is so devised as to properly engage with a securing ring 9 which is here shown to be in the form of an open coil having a single convolution. To this end the supporting member 8 may be provided with an inner groove 10 and an opening 11 so as to enable the open coil securing ring 9 to be coiled into and out of the groove 10 by rotating the

same through approximately 360° in the directions indicated by the arrows shown on Figs. 3 and 2 respectively. Preferably the inner end of the coiled ring is beveled and provided with a grooved seat 12 and the complementary edge of the opening in the supporting member may be provided with an inclined face 13 so as to promote the ready entrance of the inner end of the coiled ring into the groove 10. The supporting member may also be exteriorly provided with a groove 14 adapted to retain the ring 9 on the supporting member when such ring has been withdrawn from the inner groove and also serving to retain such ring in proper alinement with the inner groove so that it will always be in proper relation therewith to enable it to be immediately forced into the inner groove without involving any adjustment or other undesirable manipulation.

The shade 15 is provided with a groove 16 around its attaching end which is complementary to the groove 10 of the supporting member so that when the ring 9 is in the position indicated by Fig. 2 it will engage and lock together both the shade and the supporting member.

It will thus be perceived that I have succeeded in devising a means admirably adapted to achieve the several objects and ends of this invention. To secure the shade to the bracket, the parts will first be brought into the relation shown by Fig. 3 whereupon a single revolution of the ring 9 in the direction indicated by the arrow will cause such ring to coil into the inner groove of the supporting member 8 and also engage with the complementary groove of the shade as indicated by Fig. 2. Inasmuch as the ring 9 will possess a certain degree of resiliency the finger grip end 17 will be sprung into contact with the inner end of such ring bringing the parts into the closely interfitting and compact relation shown by Fig. 2. With the parts so positioned, it will be found that they will not be shaken loose even under excessive vibrations, but on the other hand the shade may be removed with the greatest of facility by merely rotating the ring in the direction of the arrow shown on Fig. 2 thereby causing the end 17 to ride up the beveled edge 18 and into the exterior groove 14, thus withdrawing the ring from its interlocking relation.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device of the nature disclosed comprising, in combination, a supporting member having a ring retaining seat and having an opening in communication therewith, a shade having a complementary seat, and a ring having the form of an open coil adapted to be passed endwise through said opening into engagement with said seats to secure said shade to said supporting member.

2. A device of the nature disclosed including in combination, a supporting member having a ring retaining seat and an opening leading thereto, a supported member having a complementary seat, and a ring having the form of an open coil adapted to be brought into and out of engagement with said seats by circumferentially moving a greater portion of said ring through said opening for the purpose of interlocking said members together.

3. A device of the nature disclosed including in combination, a supporting member having a ring retaining seat and an opening leading thereto, a shade having a complementary seat, and a ring having the form of an open coil adapted to be brought into engagement with said seats to lock said shade upon said supporting member and adapted to be withdrawn through said opening and held in inoperative engagement with said supporting member.

4. A device of the nature disclosed comprising, in combination, a supporting member having an interior ring retaining annular groove and an opening leading thereto, a supported member having an exterior complementary annular groove, and a ring having the form of an open coil adapted to be passed through said opening into engagement with said grooves to lock said members together and adapted to be withdrawn through said opening and held in inoperative engagement exteriorly of said supporting member.

5. A device of the nature disclosed including, in combination, a supporting member having an internal annular ring-retaining groove, and a similar external groove, a supported member having an external annular groove complementary to said first mentioned groove, and a rotatable ring adapted to be passed through said opening into and out of engagement with said complementary grooves to interlock or release said members respectively, said first external groove being provided to receive said ring as the latter is withdrawn through said opening.

6. A device of the nature disclosed including, in combination, an annular supporting member interiorly provided with an annular ring-retaining groove and having an opening from its exterior in communication

therewith, a shade having adjacent one edge a complementary exterior groove, and a ring having the form of an open coil adapted to be mounted on the exterior of said member and upon rotation to pass endwise through said opening into mutual engagement with said grooves to interlock said shade with said supporting member.

7. A device of the nature disclosed including, in combination, a supporting member having an internal annular ring-retaining groove and an opening leading from its exterior thereto, a supported member having a complementary groove around a portion of its exterior, and a removable ring having the form of an open coil adapted to be passed through said opening into engagement with said complementary grooves to interlock said members together.

8. A device of the nature disclosed comprising, in combination, a supporting member having an annular marginal ring retaining groove and an opening leading thereto, a shade having a complementary groove, a ring having the form of an open coil consisting approximately of a single convolution adapted upon rotation in one direction to pass through said opening into engagement with said grooves to interlock said shade and said supporting member and adapted to be withdrawn through said opening upon rotation in the opposite direction, and means provided exteriorly of said supporting member adapted to support said ring after the said withdrawal thereof.

9. A device of the nature disclosed including, in combination, a supporting member having a ring-retaining seat and an opening leading to said seat, a supported member, and a ring having the form of an open coil adapted to be rotated from a position without said supporting member through said opening into said seat to interlock said parts together.

10. A device of the nature disclosed including, in combination, a supporting member having an opening in the side thereof and a retaining seat, a supported member having a complementary seat, and a ring having the form of an open coil adapted to be rotated through said opening from a position without the supporting member into said seats to interlock said members together.

11. A device of the nature disclosed including, in combination, a supporting member, a supported member, said members having complementary adjacent ring-retaining means, an opening in one of said members, and a locking ring having a groove formed in one end and adapted to be passed through said opening into said complementary ring-retaining means to interlock said members together, said groove being positioned to receive the other end of said ring when said parts are in interlocked relation whereby accidental unlocking is prevented.

12. A device of the nature disclosed including, in combination, a supporting member, a supported member, said members having complementary annular grooves and one of said members having an exterior groove, a removable locking ring adapted by a circumferential movement thereof to be passed from said exterior groove into said complementary grooves to interlock said members together.

13. A device of the nature disclosed including, in combination, a supporting member, a supported member, said members having complementary adjacent grooves, one of said members having an opening therein leading to one of said grooves, an exterior annular groove on said last mentioned member, a removable locking means adapted to be moved from a position in said exterior groove through said opening to said complementary grooves to interlock said members together.

In testimony whereof I affix my signature, in the presence of two witnesses.

ROBERT M. DIXON.

Witnesses:
G. R. JEWETT,
E. E. ALLBEE.