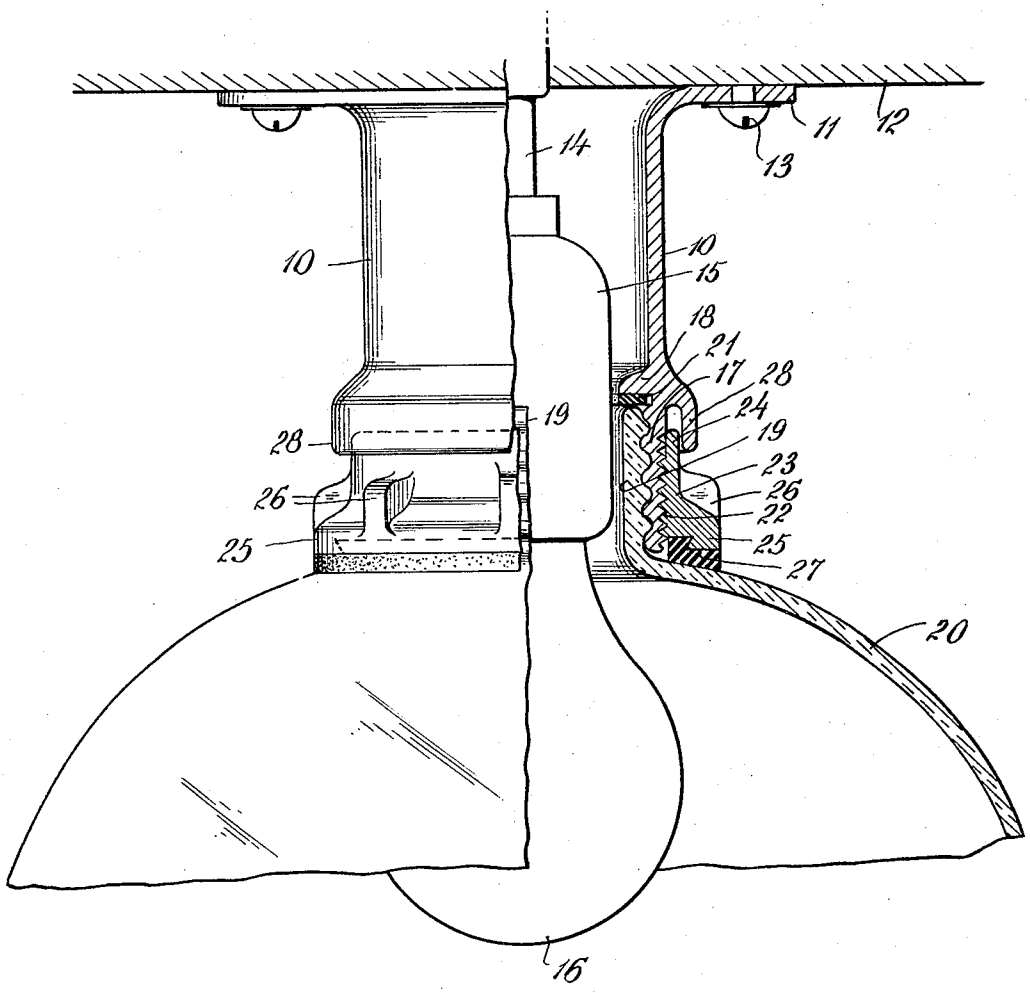
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SHADE HOLDER FOR LIGHTING FIXTURES

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## SHADE HOLDER FOR LIGHTING FIXTURES

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This invention relates to shade holders for lighting fixtures and has particular reference to an arrangement whereby a shade is securely mounted in a shock-proof holder.

Heretofore, lamp shades were secured to holders on lighting fixtures by means of screws engaging a groove on the shade, clamps for engaging the edge of the shade, fingers forced over the edges of the shade by a screw collar, and the like. In each of these former arrangements the shade was not locked in the shade holder and could work loose when subjected to vibrations and shocks, and was liable to become broken because it was not supported with sufficient resiliency to withstand vibrations and shocks. This is especially true of shade holders used in railway cars and coaches where the lighting fixtures are subjected to practically continuous vibration and frequent shocks. Also, the interior of railway coaches are painted frequently and the lamp shade holders are also painted to conform to the general decorative scheme. Accordingly, the paint would lodge in the screw threads between the clamps and fingers of the former types of shade holders and render the shade difficult or impossible to remove when it was necessary to remove the shade for cleaning, to replace it when broken, and when it was necessary to replace a lamp enclosed by a globe type of shade.

These objections to former types of lamp shade holders have been overcome in the arrangement of the present invention, in which the shade is securely but resiliently locked in place in such a way that it cannot work loose and will sustain all ordinary vibrations and shocks to which it may be subjected in normal use. The new holder is accordingly admirably adapted for supporting the shades in railway cars and coaches where they are subjected to practically continuous vibration and many severe shocks and jars.

The new holder is particularly suited for use in railway cars and coaches for another reason, and that is that it is wholly protected from being clogged by the frequent coats of paint to which it is subjected when so used, inasmuch as there are no exposed cracks or threads which are adapted to permit the removal or loosening of a part which holds the shade in the holder, all such parts being either completely enclosed or sealed by means especially arranged for that purpose.

More specifically, the invention includes a tubular shell for enclosing or surrounding an electric light socket, either supporting the latter or being secured on the same support, such as on the ceiling of a railway car or coach, or the like. The interior surface of this shell has a coarse right hand thread adapted to cooperate with threads on the outside surface of an extension on a shade or globe, which is adapted to be screwed into the shell and be supported thereby. The inner edge of this shade or globe extension is adapted to abut a resilient cushion or gasket seated on an annular shoulder or bead within the shell, whereby the shade or globe is resiliently secured against shocks and vibrations in an upward direction.

Adjustable on the outer surface of the shell along a left-hand thread is a collar whose lower end or edge carries a resilient cushion or gasket adapted to engage the outer surface of the shade or globe to resiliently secure it against vibrations and shocks in a downward direction. This collar is knurled or otherwise provided with gripping means so that it can be turned down into firm engagement with the shade or globe, whereby it is locked against movement in any direction and cannot work loose, because of the oppositely pitched threads on the shade or globe and the collar.

The opposite or upper end or edge of the locking collar is preferably of reduced diameter and extends at all times under an overlapping lip formed on the outer surface of the shell. The overlap of this lip is sufficient to allow the collar to be backed off or screwed away from the surface of the shade or globe which it engages for the purpose of removing the latter, and is also sufficient to cover the threads on the shell and the upper end or edge of the collar when it is screwed down as far as it will go against the surface of the shade or globe. Thus the lip covers the only exposed part of the holder which is suscepti-

ble to being clogged by paint or dirt and acts as a paint seal as well as masking this portion to form an attractive and uniform surface for the shell.

It will be seen that the arrangement of this invention is very effective for securely but resiliently mounting a shade in a holder which is subjected to shocks and vibrations which would loosen or injure the shade if mounted in former types of holders. Furthermore the shade, though securely locked in position by means of cooperating adjustable means having opposite threads, is nevertheless readily removable at all times even though the holder may have been painted over many times or subject to clogging by dirt or the like. These advantages are obtained in a preferred embodiment of the shade holder of this invention which is illustrated in the accompanying drawing comprising an elevational view of the device shown in partial section to illustrate the several parts of which it is made.

In this drawing, numeral 10 designates a tubular shell having a flange 11 which is fixed to a ceiling 12 by means of screws 13, rivets, or the like. Though the shell 10 is illustrated as a fixture, it may be mounted in any other way such as being suspended upon an electric light cord, chains, or the like, or may be arranged in any other way and have different shapes and forms. However, in order to illustrate the invention, the shell 10 may be assumed as being secured to the ceiling 12 of a railway car or coach.

Extending downwardly from the ceiling 12 and within the shell 10 is a conduit 14 carrying on its lower end the electric lamp socket 15 fitted with the usual electric lamp 16. The shell 10 may be formed integrally with or constitute a part of the lamp socket 15 or its housing or shell, but it is preferred and in fact required in most installations that the socket 15 bear no weight or additional parts.

The interior surface of the shell 10 is provided with a coarse, round thread 17 and an interior bead or shoulder 18 at the end of the thread. Thread 17 is preferably pitched in a right hand direction and is adapted to cooperate with the similarly threaded extension 19 on shade or globe 20, which is adapted to shade or enclose the electric lamp 16 in the usual way. The extension 19 is preferably formed integrally with the shade or globe 20, but it may consist of an attachment thereto, depending upon requirements.

The shade is adapted to be screwed into the shade holder 10 as far as it will go, i. e., until the inner end of the shade extension abuts the bead or shoulder 18, but a resilient cushion in the form of a gasket or washer 21 is interposed between the shoulder 18 and the inner end of the shade extension 19 so that the latter is resiliently supported. This cushion may be of rubber, felt, cork, or the like, and is seated in a groove in the shell 10 so that it extends over the under surface of shoulder 18 and forms a part of the complete shell.

The outside surface of shell 10 is provided with a left hand thread 22, i. e., a thread pitched in the direction opposite to that of the interior thread 17, whether left hand or right hand being immaterial, so long as the two threads 19 and 22 are pitched in opposite directions. Mounted on this external thread 22 of shell 10 is a collar 23 having a reduced upper end or edge 24, a flared lower end or edge 25 and projections 26 spaced around its outside surface, whereby the collar 23 may be readily rotated. The outer surface of the collar 23 may be knurled or otherwise roughened to provide a friction surface instead of employing the projections 26, if desired, any suitable means which performs the required function being sufficient.

The lower end or edge of collar 23 is undercut or mortised for the reception of cushion 27 which may be either a rubber, leather, felt, or other non-metallic gasket adapted to engage the surface of the shade or globe 20 without damage or injury thereto.

Overlapping the reduced upper end or edge 24 of collar 23 in every normal position thereof is a lip 28, preferably formed integrally with the shell 10 as illustrated, but not necessarily so, as a properly shaped flange secured to the outer surface of shell 10 will serve the purpose equally well. It will be seen that the lip 28 covers the joint between the upper edge or end 24 of the collar 23 and the shell 10 and, particularly, it covers any exposed threads 22 which are liable to become clogged with paint, grease, or dirt. Thus the lip forms a paint seal which protects the collar from being locked in any position on the shell 10, because paint, dirt, or the like, will not reach the threads, so that the collar and consequently the shade or globe 20 cannot be readily moved to perform its function.

In operation, when it is desired to insert the globe or shade 20, the collar 23 is first backed off, i. e., screwed upwardly under lip 28, so that the shade or globe 20 may be screwed into the shell 10 as far as it will go, the end of its extension 19 seating itself resiliently against cushion 21, as illustrated. Then the collar 23 is screwed down so that its cushion 27 seats resiliently against the upper outer surface of shade or globe 20, as illustrated. It will be seen that the oppositely pitched threads of shade 20 and collar 23 cause them to lock each other against rotation in either direction. Thus the screwing down of collar 23 against the shade 20 will not loosen it as it requires rotation in the opposite direction to do so, so that any rotation which collar 23 might impart to shade 20 will only serve to tighten the latter further.

It will be observed from the drawing that the joint between the collar 23 and the surface and threads of shell 10 with which the collar 23 cooperates are covered by the lip 28, so that these parts which are susceptible to clogging are sealed against it. Also, the shade or globe 20 is securely locked in the shell 10, but at the same time it is resiliently supported therein, the cushions 21 and 27 absorbing all vibrations and ordinary shocks to which the shade might be subjected when mounted upon a railway car, coach, or the like. The new arrangement is accordingly very effective and simple, and overcomes many objections to the former types of shade holders.

While a preferred embodiment of the invention has been illustrated and described herein, it is to be understood that this invention is not to be limited thereby, but is susceptible of many changes in form and detail within its scope.

I claim:

1. A shade holder for lighting fixtures, comprising a shell, a shade threaded on said shell, and a collar threaded on said shell and adapted to engage said shade to lock it to said shell, the thread on said collar being of opposite pitch to the thread on said shade.

2. A shade holder for lighting fixtures comprising a shell, a shade threaded on said shell, and a collar threaded on said shell and adapted to engage said shade to lock it to said shell, the threads between the shell and collar being of different pitch than the threads between the shell and the shade.

3. In a lighting fixture, the combination of an electric light socket, a shell enclosing the same, an interior thread in said shell adapted to receive a shade, an interior shoulder in said shell against which the upper edge of the shade is adapted to abut, and a collar threaded upon the exterior surface of said shell and adapted to engage said shade with one edge to lock it in said shell, the thread of said collar having a pitch opposite to that of the interior thread of said shell, and a lip on said shell overlapping the opposite edge of said collar to form a seal.

4. In a lighting fixture, the combination of an electric light socket, a shell enclosing the same, an interior thread in said shell adapted to receive a shade, an interior shoulder in said shell against which the upper edge of the shade is adapted to abut, and a collar threaded upon the exterior surface of said shell and adapted to engage said shade with one edge to lock it in said shell, the thread of said collar having a pitch opposite to that of the interior thread of said shell.

5. A shade holder, comprising a shell, a shade, fastening means on the shade and shell operative to secure them together upon relative rotation in one direction, a collar engaging the shade to lock it to the shell, and fastening means between the collar and shell for securing them together and operative upon relative rotation in a direction opposite to the direction of rotation necessary to fasten the shade and shell together.

In testimony whereof I affix my signature.

VINCENT J. GALLAGHER.