O. WINSTON.

LAMP SOCKET.

APPLICATION FILED MAY 8, 1916. RENEWED FEB. 16, 1918.

1,279,628. Patented Sept. 24, 1918.

Fig. 1

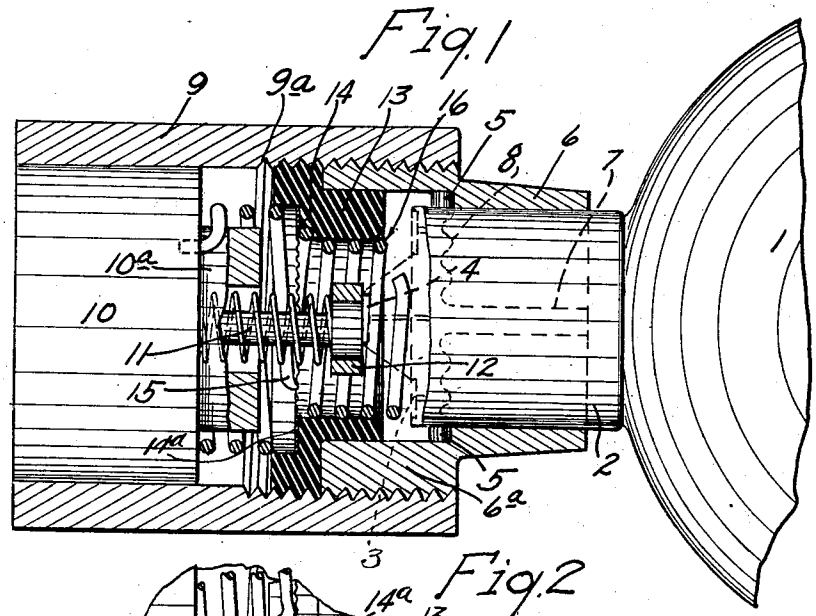


Fig. 2

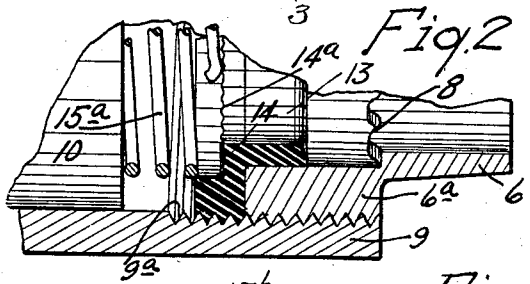
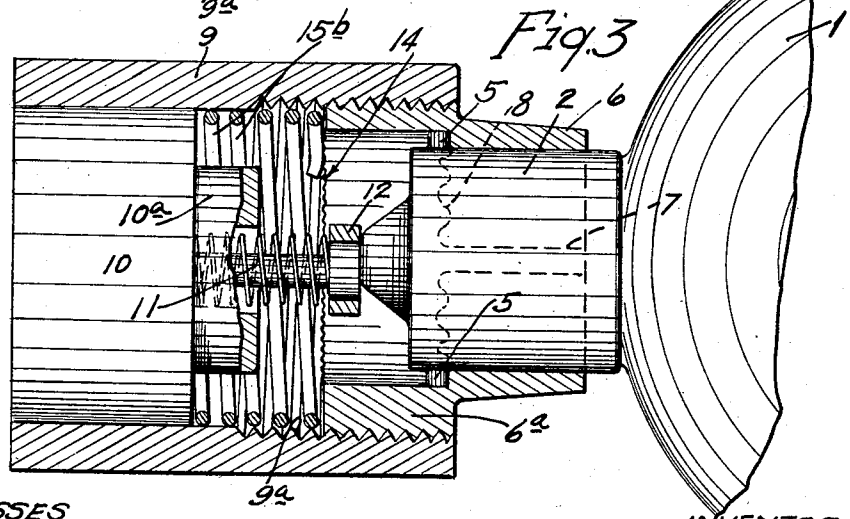


Fig. 3



WITNESSES

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LAMP-SOCKET.

1,279,628. Specification of Letters Patent. Patented Sept. 24, 1918.

Application filed May 8, 1916, Serial No. 96,162. Renewed February 16, 1918. Serial No. 217,713.

To all whom it may concern:

Be it known that I, OVERTON WINSTON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Lamp-Sockets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention has for its object to provide an improved lamp socket for headlights, and is in the nature of an improvement on or modification of the socket disclosed and claimed in my companion application, S. N. 96,161, filed of even date herewith and entitled "Lamp socket." In the companion application and in the present application, the socket comprises a sleeve and a so-called lamp holding collar, which latter is provided with an eccentric portion that has threaded engagement with the said sleeve. Within the sleeve is a coiled spring that takes up the slack or play between the eccentric and sleeve and assists in preventing accidental rotation of said eccentric and its holding collar. In accordance with the present invention, I make a sort of a ratchet connection between the spring and the threaded eccentric, so that accidental rotation of the eccentric is prevented and the said eccentric will be rotatively adjusted only when some intentional force is applied thereto for that purpose.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings:

Figure 1 is a vertical section taken through the improved socket and showing an electric light bulb held thereby;

Fig. 2 is a fragmentary view in section illustrating the still further slightly modified form of the socket illustrated in Fig. 1; and Fig. 3 is a similar view to Fig. 1, but illustrating a somewhat modified construction.

Referring first to the construction illustrated in Fig. 1, the numeral 1 indicates an electric light bulb of the double base and three contact type, such, for example, as that illustrated in my pending application S. N. 91,226, filed of date, April 14, 1916, and entitled "Headlights." A bulb of this character has three contacts 2, 3, and 4. The outer contact 2 is in the form of a metallic sleeve which surrounds the shank of the bulb; the contact 3 is in the form of a metallic ring applied to the end of the shank; and the contact 4 is in the form of a small metal disk located at the axis of the shank, the said three contacts being insulated from each other by the material of the said shank. The contact sleeve has a plurality, as shown, two radially projecting lock lugs 5, for a purpose which will presently appear.

The contact sleeve 2 of the bulb is adapted to be telescoped into a holding collar 6 that is provided with an externally threaded eccentric 6^a. The lugs 5 of the collar 2 are adapted to be inserted through internal grooves 7 in the holding collar 6 and to be turned into engagement with a corrugated internal shoulder 8 of said collar. Said parts 8 and 7 are indicated by dotted lines only, but are more fully disclosed in my prior application S. N. 86,851, filed March 27th, 1916, and entitled "Headlights."

The externally threaded eccentric 6^a of the holding collar 6 is screwed into the internal threads 9^a of a socket sleeve 9 in the rear end of which is an insulating block 10 that has a frictionally spring-pressed axially projecting contact plunger 11, the head of which engages the axial contact 4 of the light bulb, when the latter is in position. The so-called holding collar 6 and the sleeve 9 constitute an adjustable lamp socket, and by rotation of said collar and its threaded eccentric, the light bulb may be adjusted both longitudinally and transversely of the axis of the socket, and hence of the axis of the reflector, not shown, but which will be usually employed in headlights where the socket is applied. The metallic head of the contact plunger 11 is provided with a rigidly secured surrounding collar 12 of insulating material, the purpose of which will presently appear.

The numeral 13 indicates a so-called centering sleeve which is of insulating material and which is telescoped into and rigidly secured to the eccentric 6^a, so that it becomes a sectional part thereof. As shown, said centering sleeve 13 also has external threads that engage the internal threads 9^a of the sleeve 9.

The rear portion of the passage through the centering sleeve 13 is enlarged to form a bearing shoulder, and this shoulder 14 has a corrugated metallic facing 14^a that is en-

gaged by the pointed, or pawl-like end of a coiled spring 15 that is compressed between the same and the insulating block 10 and surrounds a hub portion 10^a of the latter. The rear end of the spring 15 is anchored to the insulating block 10 against rotation, and this, as shown, is accomplished by inserting the rear end thereof into a seat or hole formed in said block. The contact spring 16 is extended through the centering sleeve 13, and at its rear end, is attached to the metallic facing 14^a in any suitable way, as, for example, by soldering one end thereof to said facing. The front end of said contact spring bears against the contact ring 3 of the lamp shank and is preferably bent slightly at its point of contact, as shown.

Obviously, the lamp may be adjusted both axially and transversely of the axis of the socket when the holding collar 6 and its eccentric 6^a and centering collar 13 are rotated. This adjustment of the said collar may be produced by taking hold of the same with the fingers, or it may be done by rotating the light bulb while its lock lugs 5 are engaged with the corrugated shoulder 8. It is frequently, however, desirable to rotate the light bulb so as to set its filament in a vertical position, for example, without changing the adjustment of the holding collar 6, and this may be done by pressing rearward on the bulb so as to carry its lugs 5 out of engagement with the corrugated shoulder 8 and then rotating the said bulb. When the said bulb is rotated, there will be some frictional engagement between its shank and the holding collar, but accidental rotation of the said collar will then be prevented by the friction between the threads and by the further resistance to such rotation caused by the engagement of the end of the tension spring 15 with the corrugated shoulder 14 of the centering sleeve 13.

The construction illustrated in Fig. 2 is like that illustrated in Fig. 1, except that the front end of the tension spring 15^a is less pointed, or, in other words, is slightly rounded so that it has a less positive engagement with the corrugations of the shoulder 14.

The construction illustrated in Fig. 3 is designed for a so-called single base or two-contact light bulb, and the contact spring 16 and centering sleeve 13 are dispensed with, the corrugated shoulder 14 is formed directly on the inner end of the eccentric 6^a and the tension spring 15^b has only a slightly curved end that engages directly with the said corrugated shoulder 14, and hence, offers a little less resistance to the rotation of the holding collar than is offered by the arrangements illustrated in Figs. 1 and 2.

What I claim is:

1. A lamp socket comprising a sleeve and a lamp holding collar rotatively mounted within said sleeve and having an annular corrugated shoulder independent of its lamp holding structure, and a spring re-acting against said sleeve and having an end engaging the said corrugated shoulder.

2. A socket comprising a sleeve and a collar provided with an eccentric having threaded engagement with the interior of said sleeve, said eccentric having a corrugated shoulder, and said sleeve having a plug, and a spring re-acting against said plug at one end and having its other end engaged with said corrugated shoulder.

3. A socket comprising a sleeve and a collar provided with an eccentric having threaded engagement with the interior of said sleeve, said eccentric having a corrugated shoulder, said sleeve having a plug, and a coiled spring anchored to said plug at one end and having its other end pointed and engaged with said corrugated shoulder.

4. In a lamp socket, the combination with a sleeve having a plug in one end, and internal threads in its other end, of a holding collar provided with an eccentric having external threads engaging the internal threads of said sleeve, a centering sleeve of insulating material secured to said eccentric and provided with a corrugated internal shoulder, and a tension spring re-acting against said plug at one end and with its other end seated against the said corrugated shoulder.

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

OVERTON WINSTON.

Witnesses:

CLARA DEMAREST,

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."