H. D. McFADDIN.

LIGHTING FIXTURE.

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1,204,044.

Patented Nov. 7, 1916.

Fig. 1.

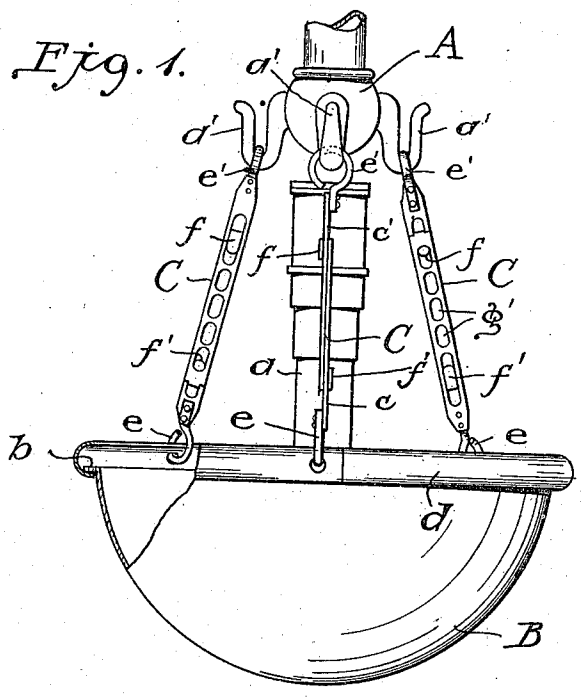


Fig. 2.

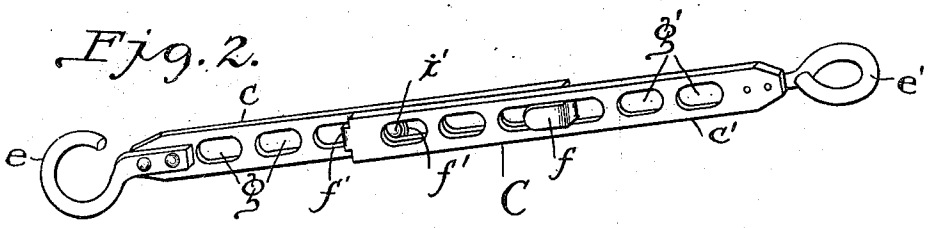
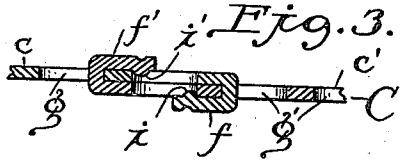


Fig. 3.



WITNESS:

C. Gabristie.

INVENTOR

Harrison D. McFaddin.

BY

Jas H. Griffin

Attorneys

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

UNITED STATES PATENT OFFICE.

HARRISON D. McFADDIN, OF EAST ORANGE, NEW JERSEY.

LIGHTING-FIXTURE.

1,204,044. Specification of Letters Patent. Patented Nov. 7, 1916.

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To all whom it may concern:

Be it known that I, HARRISON D. McFADDIN, a citizen of the United States, residing in East Orange, county of Essex, and State of New Jersey, have invented a certain new and useful Lighting-Fixture, of which the following is a specification.

This invention is a light fixture of the character particularly adapted for use in connection with semi-indirect lighting, and the object of the invention is to support a lamp shade or globe in a simple, attractive and efficient manner by such means as will produce a minimum shadow.

A further object of the invention is to provide an extensible connection between the lamp-carrying portion of the fixture and the globe or shade whereby the relative position of these members may be regulated to produce maximum efficiency in lighting and the best effects from an esthetic standpoint.

Generally speaking, the invention embodies lamp supporting means provided with members adapted to support a globe or shade and maintain the same in proper spaced relation to the lamp carried by the lamp-supporting means. These members are, according to the present invention, extensible whereby the relative position of the globe and lamp may be regulated as desired.

In the preferred practical embodiment of the invention, a shade-engaging member is provided, which is adapted to be secured to the shade, and extensible supporting rods engage said shade-engaging member at one of their ends, while their opposite ends are adapted to engage with the fixture which supports the lamp. The extensible rods are in the form of two units, one unit of each rod being attached to the shade-engaging member and the other unit to the lamp supporting member. The units are adapted to overlap one another in face abutting relation, and each unit is provided at its free ends with a hook-shaped tongue adapted to engage with one of a plurality of apertures or slots in the other unit, whereby the units are locked together against lateral relative movement and in such manner as to sustain tension applied to the opposite ends of the rods.

Features of the invention, other than those specified, will be apparent from the hereinafter detailed description, taken in conjunction with the accompanying drawings.

In the accompanying drawings, I have illustrated one practical embodiment of the invention, but the construction shown therein is to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a side elevation showing a lamp fixture embodying the present invention. Fig. 2 is a perspective view of one of the shade supporting members, and Fig. 3 is a central, longitudinal section through one of the shade supporting members, showing the same in its maximum, extended position and the manner in which the two units are clamped together.

Referring to the drawings, A designates a fixture of any well known and approved form, into which fixture is adapted to screw the plug of an electric lamp *a*. Fixture A is provided with a plurality of hooks or other attaching members *a'* by which a suitable shade B is supported, through the medium of a plurality of supporting rods or spacing members C. The upper ends of supporting rods C are adapted to engage with the hooks *a'*, while their lower ends coöperate with a clamping ring *d* adapted to engage with a flange *b* formed on shade B. Thus, the globe or shade B is supported on the fixture in proper, spaced relation to and below the lamp *a*, which is the source of light.

In the devices of the prior art, of the general style to which the present invention relates, the supporting rods or spacing members, which serve to carry out the purpose of the rods C, are rigid, unyielding, and of a certain predetermined length. This has many disadvantages, for the reason that, in fitting a globe or shade to a fixture, care must be taken that the supporting members are of such length as to properly position the shade or globe relative to the source of illumination. Fixtures are made in many different sizes, and, furthermore, electric bulbs or other lighting devices are made in various lengths, so that no one fixed length of supporting member is applicable to all the various types of fixtures or lamps. Accordingly, it is the common practice, when supporting a globe or shade in the manner specified, to provide several different sizes or lengths of links, each particular size or length being adapted to coöperate with a particular size of fixture or lamp. Manifestly, this necessitates the carrying in stock of a large number of accessories, some of

which are seldom, if ever, employed, and some of which are so infrequently employed that they become shop-worn and lose their finish, thereby rendering them unsalable. The foregoing disadvantages are overcome in the present invention by the provision of a spacing member which is extensible, *i. e.*, one which may, in its collapsed position, serve to maintain the globe or shade at a minimum distance from the fixture and which, in its extended position, serves to place the shade or globe in considerably remote relation relative thereto.

In the preferred embodiment of the invention shown in the drawings, the shade supporting member embodies a pair of cooperating parts of substantially identical construction, which parts shall, in the interest of brevity, be hereinafter termed the units of the supporting member.

Each of the units *c c'* is in the form of a flat strip, preferably of metal. At one end of each unit is a hook *e e'*, respectively. At the opposite ends of each unit are tongues *f f'* which are bent as shown in Fig. 3 to form hooks. The units are provided throughout substantially their entire length with a plurality of slots or openings *g g'* of such size and proportion that the hook-shaped tongue *f* of the one unit *c*, may enter any one of the slots *g'* of the other unit *c'*, and, in like manner, the hook-shaped tongue *f'* may enter any one of the slots *g* of the unit *c*. The units are adapted to be placed in parallel, overlapping relation, with their adjacent faces contacting. When so positioned, the hook-shaped tongues *f f'* are adapted to register with corresponding slots *g g'* and to extend through said slots. When a longitudinal pull is subsequently applied at the opposite ends of the respective units, tongues *f f'* are moved longitudinally in the slots in which they are positioned, so that each tongue of each unit will engage with that portion of the other unit intermediate the slot in which it is positioned and the next adjacent slot. The units will thus be locked against lateral movement and, consequently, any tension applied to the opposite ends of the supporting member, through the hooks *e e'*, will be transmitted directly to the tongues *f f'* and will serve to force said tongues into tighter engagement with the uncut portions of said units. When thus secured together, the units collectively serve as a connecting member for supporting a globe or shade. Moreover, in view of the fact that the tongues are adapted to cooperate with any of the slots in their complementary members, it will be apparent that the length of the connection may be varied considerably. In other words, if the hook *f'* is in engagement with the slot *g* adjacent the hook *e* of the unit *c*, and the hook *f* is in engagement with the slot *g'* adjacent the hook *e'* of the unit *c'*, the connection C will then be in its most contracted position. If, on the other hand, the hooks *f f'* engage with the slots *g g'* which are nearest the free ends of the units, as shown in Fig. 3, the connection will then be in its most extended position. However, many intermediate lengths may be produced by bringing the tongues *f f'* into engagement with intermediate slots.

Means is preferably provided for locking the parts in any of their various positions, and this means is shown as embodying small projections *i i'* which are formed on the inner side of the hook-shaped tongues *f f'*, respectively, and near the free ends thereof. When the units are assembled with the hook-shaped tongues in clamping position, the projections *i i'* engage with the slots adjacent the slots through which the tongues project, as shown in Fig. 3. The tongues are naturally of resilient character so that, when in the position shown, the projections enter the slots referred to and lock the parts against inadvertent disengagement. However, when it is desired to change the length of the connection, a slight pressure is sufficient to cause the tongues *f f'* to be sprung sufficiently to allow of their disengagement from the uncut portions of the units intermediate the slots. The locking devices described need not, necessarily, be of great strength and withstanding power, as no strain is imposed upon them in the normal operation of the connection.

It will thus be manifest that the connection of the present invention is adapted to a great variety of lengths and that, in the employment of such a connection, the prior disadvantage of carrying a large number of sizes in stock is entirely obviated, since, when units of various lengths are required, these lengths may be readily procured by the simple manipulation of the units to the required extent.

Of course, there are many different ways in which the present invention may be commercially utilized as a shade supporting device, but, in the preferred embodiment illustrated, the units are shown as embodying strips of thin sheet metal. When the devices are used to support a globe, the hooks *e e'* at the opposite ends of the connections are so positioned that their contacting faces lie in a plane radial of the source of illumination (as shown in Fig. 1) whereby practically no shadow whatsoever is produced, due, of course, to the insignificant thickness of the sheet metal units *c*. To produce this effect, it is preferable that the hooks *e e'* be so secured to their respective units as to lie in planes substantially perpendicular to one another, as shown more particularly in Figs. 1 and 2. Moreover, in the specific embodiment shown, the hook *e'* at one end of the

connection is substantially closed, while the hook *e* at the other end is open to allow of proper engagement with the shade engaging member.

It will be manifest, from the foregoing description, that the device of the present invention obviates the many disadvantages heretofore prevalent, is extremely simple in construction and mode of operation, embodies a minimum number of parts, and yet withal is extremely efficient in its operation. No tools whatsoever are required in the regulating of the connection, which may be done without any skill whatsoever. Furthermore, if a fixture embodying the present invention is installed with a lamp of a given size and it is subsequently desired to use a different form of lamp, either of larger or smaller size, this may be readily compensated for by a simple manipulation of the shade supporting members, without the necessity of employing any new parts or subtracting from the original device any of the parts which it embodies. Changes of this character may be made in a moment's time and the relative position of the shade and lighting unit may be so regulated as to produce maximum efficiency in lighting, as well as a marked degree of beauty. This is attributable, to a large extent, to the particular construction of the device which is of such slender and esthetic character as not to detract from the beauty of the fixtures generally employed.

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

1. A connection for supporting a lamp shade upon a fixture, embodying, in combination, a pair of elongated strips each of which is provided with a plurality of alined slots positioned at spaced distances longitudinally of the strips, and a hook at the one end of each of said strips, the hook of the one strip being adapted to engage with any one of the slots of the other strip, whereby the length of the connection may be regulated.

2. A connection for supporting a lamp shade upon a fixture, embodying, in combination, a pair of elongated strips, each of which is provided with a plurality of alined slots positioned at spaced distances longitudinally of the strips, the hook of the one strip being adapted to engage with any one of the slots of the other strip, whereby the length of the connection may be regulated, and means for locking said hooks against inadvertent disengagement from the slots.

3. A connection for supporting a lamp shade upon a fixture, embodying, in combination, a pair of elongated strips, each of which is provided with a plurality of slots positioned at distances longitudinally of the strips, and a hook at the one end of each of said strips, the hook of the one strip being adapted to engage with any one of the slots of the other strip, whereby the length of the connection may be regulated, and a projection on the inner side and near the free end of each of said hooks which projection is adapted to engage with a portion of the cooperating strip intermediate the slots thereof for the purpose of locking the hook in predetermined position.

4. A connection for supporting a lamp shade or reflector upon a fixture, embodying, in combination, a pair of elongated members each of which is provided with a plurality of openings positioned longitudinally of said members, and an attaching member at one end of each of said members, the attaching member on the one member being adapted to engage with any one of the openings of the other member, whereby the length of the connection may be regulated.

5. A connection for supporting a lamp shade or reflector upon a fixture, embodying, in combination, a pair of elongated members each of which is provided with a plurality of openings positioned longitudinally of said members, an attaching member at one end of each of said members, the attaching member on the one member being adapted to engage with any one of the openings of the other member, whereby the length of the connection may be regulated, and means for locking said attaching members against inadvertent disengagement from the openings of the respective members.

6. In a device of the class described, the combination of a lamp-supporting fixture, a shade, a plurality of connections secured to the lamp-supporting fixture and to the shade, each of which connections embodies a pair of coöperating elongated strips, one of which is secured to the lamp-supporting fixture and the other to the shade, and each of which strips is provided with a plurality of apertures arranged longitudinally of its extent, and an attaching device at its free end, the attaching device of each strip being adapted to coöperate with any of the apertures of the other strip, whereby the length of the connection may be increased or diminished, with the result that the position of the shade, relative to the lamp-supporting fixture, may be regulated.

In testimony whereof I have signed my name to this specification.

HARRISON D. McFADDIN.

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