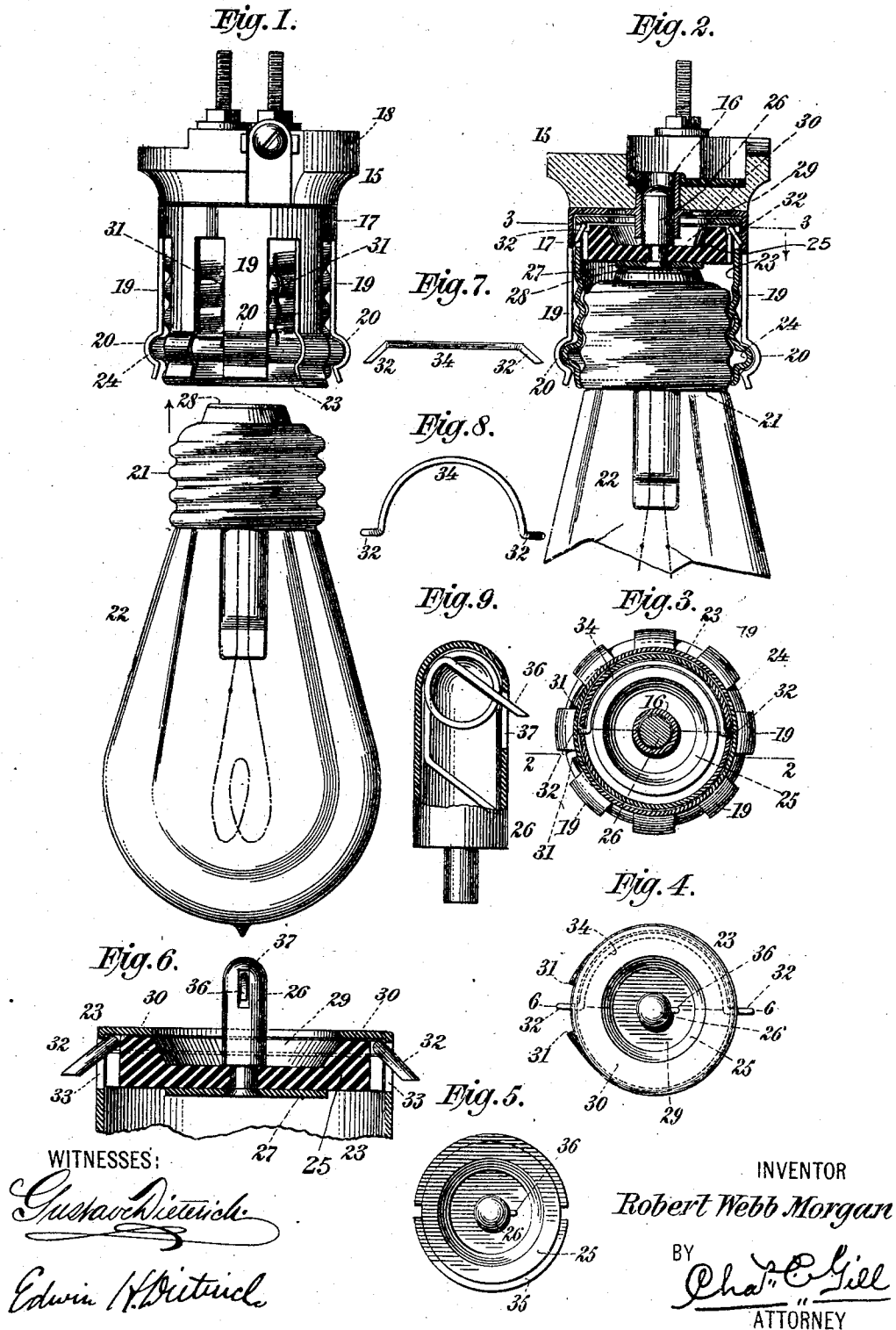


R. W. MORGAN.
ELECTRIC LIGHT FIXTURE.
APPLICATION FILED MAR. 9, 1905.



UNITED STATES PATENT OFFICE.

ROBERT WEBB MORGAN, OF YONKERS, NEW YORK, ASSIGNOR TO PROVIDENCE GAS BURNER COMPANY, OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

ELECTRIC-LIGHT FIXTURE.

No. 796,922.

Specification of Letters Patent.

Patented Aug. 8, 1905.

Application filed March 9, 1905. Serial No. 249,199.

To all whom it may concern:

Be it known that I, ROBERT WEBB MORGAN, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Electric-Light Fixtures, of which the following is a specification.

The invention relates to improvements in electric-light fixtures, and pertains more particularly to sockets adapted to receive incandescent electric lamps.

It is well known that lamp-bulbs have to be replaced from time to time and that ordinarily the installation in a building is equipped with sockets to receive only some one particular manufacture of lamp, whereas there are several different types of bulbs on the market, any of which may be purchased by the consumer. Some of these installations are equipped with a special "Westinghouse" socket to receive the Westinghouse lamp, and so far as I have been able to ascertain the Westinghouse sockets are not adapted to receive any other make of lamp.

The object of my invention is to provide means applicable to and preferably not removable from the Westinghouse socket for receiving an "Edison" lamp; and my invention consists in a novel device which I designate an "adapter" and which may be applied within the Westinghouse socket and is specially constructed to receive an Edison lamp.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a Westinghouse socket with my new adapter in position therein ready to receive the Edison lamp, also illustrated, the lamp being shown as just about to be entered into the adapter. Fig. 2 is a central vertical section of same with the lamp, which is partly broken away, shown as secured to the adapter. Fig. 3 is a horizontal section of same on the dotted line 3 3 of Fig. 2. Fig. 4 is a detached top view of the adapter. Fig. 5 is a detached top view of a plate or button located in the upper end of the adapter. Fig. 6 is an enlarged sectional view through the upper portion of the adapter on the dotted line 6 6 of Fig. 4. Fig. 7 is a detached side elevation of a wire loop applied

within the upper end of the adapter and having downwardly and outwardly extending prongs to engage the wall of the socket to prevent the withdrawal of the adapter therefrom. Fig. 8 is a top view of same; and Fig. 9 is an enlarged side elevation, partly in central vertical section, of a contact-post carried by the adapter and equipped with means for aiding in preventing the withdrawal of the adapter from the socket.

In the drawings, 15 designates the usual Westinghouse socket less the inclosing shell, key, and other parts, (unnecessary to illustrate,) this socket 15 comprising as essential parts a central contact-tube 16, which may be in one piece or in the form of a split tube, and a metal shell 17, secured to the stone base 18 and having the series of downwardly-extending spring-fingers 19, which near their lower ends are beaded, as at 20, to engage an annular beading present upon the cap of the usual Westinghouse lamp. The socket 15 is of usual and well-known form and construction, and my invention does not involve any change whatever in said socket, but has to do with the provision of means applied to said socket whereby said socket is rendered capable of properly receiving the threaded cap 21 of the Edison lamp 22, which lamp is also of well-known form and construction and has long since been an article of commerce.

The adapter of my invention is designated by the numeral 23 and comprises a sheet-metal cylindrical shell or body which is threaded to receive the threaded cap 21 of the lamp and is preferably formed near its lower edge with an annular bead 24 to be engaged by the beadings 20 on the spring-fingers 19 of the socket. The adapter 23 is applied to the socket 15 by being pushed directly into the same, the spring-fingers 19 clasp the adapter. Within the upper end of the adapter, which end is open at its central portions, I place a button 25, of insulating material, carrying a contact-post 26, adapted to enter and engage the walls of the contact-tube 16 of the socket member, this post 26 being extended through the button 25 and carrying on its lower end a metal plate 27 to be engaged by a metal plate 28, carried by the lamp, when the latter is in position within the adapter. The upper surface of the button 25 is recessed or made concave, as at 29, so as to permit the usual sleeve 16 of the

socket to pass downwardly to an adequate extent upon the post 26 and enable the upper end 30 of the adapter to become seated snugly within the upper portion of the shell 17, as shown in Fig. 2. The upper end of the adapter 25 is removed about its central portions, and hence the sleeve 16 may readily engage the post 26 and pass into the recess 29 without contacting with the upper end of the adapter 23.

The broader features of the invention comprise the adapter in the form of a shell threaded to receive the Edison lamp and fitting within the shell 17 of the Westinghouse socket, the adapter having within its upper end the button 25, carrying the post 26 for engagement with the sleeve 16 of the socket member in the manner shown; but I preferably equip the adapter with means for preventing its rotation within the shell 17, as during the application or removal of a lamp, and with means for preventing the withdrawal of the adapter from the Westinghouse socket. The means for preventing the rotation of the adapter within the shell 17 consist of lips 31, formed in the vertical side of the adapter and sufficiently separated from each other to enable them to straddle one of the spring-fingers 19 of the shell 17, and these lips 31 are formed by simply slitting the side of the adapter in a vertical direction and bending outwardly the metal at the outer sides of the slits. In applying the adapter to the shell 17 care will be taken to see that one of the spring-fingers 19 becomes disposed between the lips 31, so that upon any tendency of the adapter to rotate one or the other of the lips 31 will contact with the edge of said spring-finger, and thereby serve to lock the adapter stationary. The means I provide for preventing the direct withdrawal of the adapter from the socket also aid in preventing rotation of the adapter, and these means comprise downwardly and outwardly deflected wire prongs carried by the adapter and adapted to engage wall-surfaces of the socket member, and preferably I provide the wire prongs in the shell of the adapter and also in the post 26; but I do not deem it essential to locate the prongs at both points indicated. The prongs provided in the body of the adapter are numbered 32 and they extend downwardly and outwardly through slots 33, Fig. 6, in the wall of the adapter, and the said prongs 32 are simply the downwardly and outwardly bent ends of a piece of wire 34, which is in the form of a half-circle and lies within an annular groove 35, Fig. 5, formed in the upper outer edges of the button 25, the said piece of wire 34 being confined within said groove by the adjacent walls of the upper inner corner of the adapter 23. When the wire 34 is in position and the adapter is being pressed upwardly into the shell 17, the prongs 32 may yield downwardly, so as not to interfere with the

introduction of the adapter to said shell; but when the adapter has reached home the points of the prongs 32 will engage the upper inner wall-surface of the shell 17 and bite against the same sufficiently to prevent the downward withdrawal of the adapter from said shell. The position of the prongs 32 is such that upon an endeavor being made to withdraw the adapter from the shell 17 the pressure will act upon the upper ends of the prongs and have a tendency to move them into a horizontal position, whereby their scarfed or sharpened ends will be more firmly driven outwardly against and even into the wall of the shell 17. Within the post 26 I provide a prong 36, which corresponds in function with the prongs 32, the said prong 36 being adapted to engage the inner wall of the contact-sleeve 16 of the socket member in the same manner that the prongs 32 may engage the inner wall of the shell 17. The prong 36 extends downwardly and outwardly through a slot 37, formed in the post 26, and is simply one end of a piece of coiled spring-wire located within the post 26 and having its other end in engagement with the inner wall of said post, as shown in Fig. 9. The upper end of the prong 36 has a bearing against the upper inner end of the post 26, and when the latter is inserted upwardly into the sleeve 16 the prong 36 may yield downwardly; but upon an attempt being made to withdraw the adapter 23 from the socket the upper end of the post 26 pressing downwardly upon the upper end of the prong 36, with the lower end of the latter engaging the sleeve 16, will tend to move the prong toward a horizontal position, and thereby cause the same to more firmly bind against said sleeve. The prongs 32 and 36 aid in preventing the rotation of the adapter 23, but are primarily employed to prevent the withdrawal of the adapter from the socket 15. I do not limit my invention to the employment of both the prongs 32 and prong 36 and merely employ the plurality of prongs to make sure that under any and all conditions the adapter 23 may not be withdrawn from its receiving-socket.

The adapter 23 when placed within the socket 15 is capable of receiving the Edison lamp 22, whereas without said adapter the said socket would only receive a Westinghouse lamp.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the socket and the lamp having the threaded cap 21, the adapter hereinbefore described for said socket and cap and comprising the hollow threaded shell having within its upper end the button of non-conducting material carrying a post to engage the contact 16 of the socket and affording a conductor for a part carried by the lamp, means for preventing the axial rotation of the adapter within said socket and means

for locking said adapter within said socket; substantially as set forth.

2. In combination with the socket and the lamp having the threaded cap 21, the adapter hereinbefore described for said socket and cap and comprising the hollow threaded shell having within its upper end the button of non-conducting material carrying a post to engage the contact 16 of the socket and affording a conductor for a part carried by the lamp, and means for preventing the rotation of said adapter within said socket, said means comprising lips turned outwardly from the adapter for engagement with a finger of said socket; substantially as set forth.

3. In combination with the socket and the lamp having the threaded cap 21, the adapter hereinbefore described for said socket and cap and comprising the hollow threaded shell having within its upper end the button of non-conducting material carrying a post to engage the contact 16 of the socket and affording a conductor for a part carried by the lamp, and means for locking the adapter within said socket, said means comprising a downwardly and outwardly deflected spring-finger

to engage said socket; substantially as set forth.

4. In combination with the socket and the lamp having the threaded cap 21, the adapter hereinbefore described for said socket and cap and comprising the hollow threaded shell having within its upper end the button of non-conducting material carrying a post to engage the contact 16 of the socket and affording a conductor for a part carried by the lamp, and means for locking the adapter within said socket, said means comprising the piece of wire 34 having the downwardly and outwardly deflected ends forming prongs and projecting through the sides of the adapter, and said piece of wire being held between the upper outer edges of the button and the upper end of said adapter; substantially as set forth.

Signed at New York city, in the county and State of New York, this 7th day of March, A. D. 1905.

ROBERT WEBB MORGAN.

Witnesses:

CHAS. C. GILL,
ARTHUR MARION.