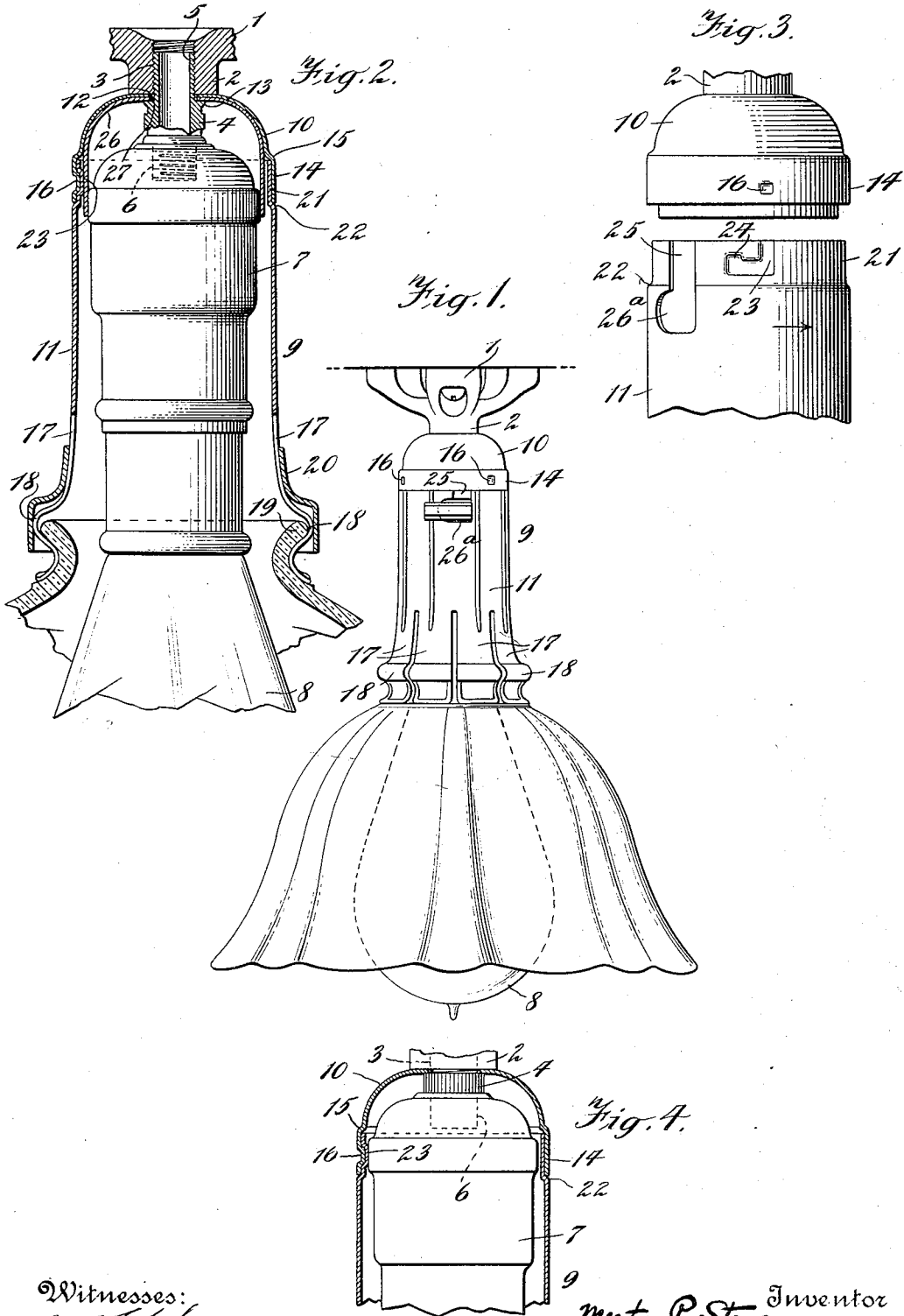


M. P. STEVENS.
LIGHTING FIXTURE.
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Patented May 5, 1914.



Witnesses:
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UNITED STATES PATENT OFFICE.

MERTON P. STEVENS, OF EAST ORANGE, NEW JERSEY.

LIGHTING-FIXTURE.

1,095,296.

Specification of Letters Patent.

Patented May 5, 1914.

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To all whom it may concern:

Be it known that I, MERTON P. STEVENS, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Lighting-Fixtures, of which the following is a specification.

My invention relates broadly and generally to new and useful improvements in lighting fixtures, and more particularly of that character or type adapted to support a socket member for an incandescent light bulb, and provided with a cover for the socket member, and means connected with the cover for supporting a shade or the like in operative relation to a bulb connected to the socket.

Among other objects which will appear from the detailed description to follow hereinafter, it is my purpose to provide in combination with a suitable support, a socket cover and shade holder comprising parts which will be readily separable and removable to permit access to the light socket for purposes of repair or other reasons making such access desirable or necessary.

A further and important object is to provide a socket cover and shade support comprising a plurality of parts, with a simple and efficient interlocking detachable connection for said parts, which connection will be reinforced and braced so as to prevent distortion of the thin metal parts, and accidental separation thereof.

The invention consists in the construction and combination of parts to be fully described hereinafter, and the novelty of which will be particularly pointed out and distinctly claimed.

I have fully and clearly illustrated my invention in the accompanying drawings to be taken as a part of this specification, and wherein:

Figure 1 is a view in elevation of a preferred embodiment of my invention, Fig. 2 is a longitudinal central section through the embodiment shown in Fig. 1, Fig. 3 is a detail view showing the parts separated to show the construction of the interlocking joint. Fig. 4 is a longitudinal central detail sectional view of a modified form of the invention.

Referring to the drawings by characters of reference, 1 designates a supporting bracket

of any suitable construction, and adapted to be secured to a wall, ceiling or other support. This bracket is adapted to support a lighting fixture to be hereinafter described, and for this purpose is provided with a central collar or boss 2, formed with a threaded opening or socket 3.

4 designates a tubular coupling member having a threaded nipple 5, adapted to be screwed into said opening or socket 3, said nipple having at its end opposite to the nipple 5, a similar nipple 6, exteriorly threaded to be screwed into the socket piece 7, preferably, but not necessarily, of the type to receive an incandescent light bulb 8. It will be understood that the lead wires for the socket may pass through the tubular coupling.

9 designates generally a combined socket cover and shade or reflector support, the same consisting of an upper member 10 and a lower member 11, formed of thin sheet metal, and provided with means for detachably connecting the same. The upper member preferably consists of a dome-like shell having a central opening 12 to receive the nipple 5 on the coupling piece 4, by which it is supported, said coupling having a shoulder 13 between which and the collar 2 the part 10 is clamped or held. This shell extends around the coupling, the lower edge thereof terminating preferably between the ends of the light socket, and preferably a short distance beyond the nipple 6. The part 10 is preferably circular and is provided at its outer end with an annular flange, 14, said flange being slightly offset from the body of said part 10, thereby forming an internal circumferential shoulder 15. The flange 14 is formed with inwardly projecting lugs 16, preferably formed by indenting the metal of the flange as shown in Fig. 2 to serve a purpose to be presently described.

The lower part 11 of the socket cover and shade holder consists of a tubular sheet metal shell adapted to surround and cover the lamp socket, and of any desired design. In the embodiment shown the part 11 is flared from its upper or inner end toward the light bulb, and at its outer or lower end is provided with means for supporting a shade, reflector or the like. This means may take a number of forms within the scope of my invention, but I prefer to slit the shell longitudinally at a plurality of points to provide

a plurality of spring clamping fingers 17, provided at their free ends with recesses 18 to receive and lock over a flange or bead 19 on a shade, reflector or the like. A clamping ring 20 may be employed, if desired, to compress or hold the said fingers in locking position, said ring surrounding the part 11 and movable lengthwise thereof to hold or release the said fingers. At its end opposite from the spring fingers, the part 11 is formed with a circular locking flange 21, to enter the open end of the part 10, and be interlocked with the flange 14 thereof, said flange 21 being offset inwardly from the body of the shell 11 to provide a shoulder 22, adapted to be engaged by the outer edge of the flange 14 to limit inward movement of the shell 11 when inserted in the part 10.

The flange 21 of the part 11 is provided with a plurality of exterior bayonet grooves 23, preferably indented in the metal of the flange, and arranged to cooperate with the lugs 16 heretofore described to detachably connect the parts 10, 11. I preferably provide the inner end of each of the circumferential portions of the bayonet grooves with a locking recess 24, to receive the lugs 16 after the parts are interengaged so that the parts will be locked against detachment by accidental rotation of the part 11. This is accomplished by pulling the shell 11 away from the part 10, after the joints are properly interlocked, whereby the lugs are caused to enter the said recesses. I prefer to employ the indented grooves as distinguished from slots because they tend to strengthen and stiffen the thin sheet metal shell of the flange, whereas the cutting away of the metal to form slots would weaken the flange and render it liable to distortion or bending, tending thereby to prevent easy and secure connection of the parts.

As shown in Figs. 1 and 3, the shell 11 may be provided with a longitudinal slot 25 opening into a circumferential slot 26, to facilitate use of the fixture in connection with sockets provided with switch keys, but this feature may be omitted when the invention is to be used in connection with keyless sockets or fixtures.

In fixtures of this kind it is well known that most of the parts are made of thin sheet metal stamped to the desired form, and that they may be crushed or distorted without the expenditure of very great force, and I therefore contemplate the provision of simple and effective means for stiffening and bracing the joint between the parts 10 and 11, so that they cannot be forced apart by bending the part 11 laterally relative to a line extending longitudinally through the fixture. This means preferably consists of a stiffening member, preferably supported from the coupling 4, and overlapping the interlocking joint in such a manner as to

prevent disengagement of the parts by lateral movement relative to each other. In the preferred embodiment shown, this means consists of a dome-shaped metallic shell 26, having a central opening 27 to receive the nipple 5, said shell being located within the part 10, and preferably in contact therewith, as shown in Fig. 2, throughout an area extending from the said coupling 4 to a point adjacent the shoulder 15. From the shoulder 15, the free edge portion of the shell 26 is spaced from the inner surface of the flange 14 to provide a space to receive the flange 21 on the part 11, said shell 26 extending beyond said flanges when interlocked so as to overlap and brace the joint formed. The free edge or skirt of the reinforcing member 26 is so located that it closely approaches, and preferably engages the inwardly projecting walls of the grooves 23, so as to directly brace and stiffen the same. The shell 26 is preferably of such diameter as to contact the outer face of the socket piece so that said shell itself is braced and stiffened thereby. In Fig. 4 I have shown another means for accomplishing substantially the same purpose, in which the inner stiffening shell is omitted and the parts are so located and designed that the joint between the parts 10 and 11 will lie substantially in contact with the outer surface of the socket piece for the light. In this construction the socket piece itself serves as the direct stiffening means for the joint between the upper and lower parts of the combined socket cover and shade holder.

When the parts are to be assembled the part 11 is presented to the part 10 in the relative position shown in Fig. 3, and is moved to insert the flange 21 into the space between the member 26 and the flange 14 in the construction shown in Figs. 1, 2 and 3, and between the socket and the flange 14 in the construction shown in Fig. 4. This will serve to enter the lugs 16 into the grooves 23, and movement of the member 11, until its shoulder is engaged by the edge of the flange 14, will bring the lugs 16 into the bottom of the longitudinal portions of the bayonet grooves 23. The member 10 is then rotated in the direction of the arrow in Fig. 3, to bring the lugs 16 to the ends of the periphery portions of the bayonet grooves or opposite the recesses 24, whereupon the part 11 may be pulled away from the member 10 to seat the lugs in the recesses 24. When in this position the section 11 cannot be rotated to release the interlocking connection. When the parts are to be separated the part 11 is moved in toward the part 10 to release the lugs from the locking recesses 24, and the part 11 may then be rotated in the reverse direction from that indicated by the arrow in Fig. 3, to bring the lugs into

register with the longitudinal portions of the bayonet grooves to permit separation of the parts.

What I claim and desire to secure by Letters Patent of the United States is:

1. In a fixture of the character described, a support, a socket cover and shade holder comprising an upper section, and a lower section separable from said upper section and having shade-supporting means, said sections being of thin metal and having a detachable interlocking connection, and means supported by said support and engaging said connection to brace and stiffen the same.

2. In a fixture of the character described, a support, a socket cover and shade holder comprising an upper section, and a lower section separable from said upper section and having shade-supporting means, said sections having a detachable interlocking connection, and means supported by said support independent of said socket cover and shade holder, and engaging said connection to brace and stiffen the same.

3. In a fixture of the character described, a support, a socket cover and shade holder comprising a dome-shaped top section, and a lower section separable from the upper section and having shade-supporting means, said sections having an interlocking connection, and a dome-shaped rigid reinforcing shell supported rigidly on said support and overlapping said interlocking connection.

4. In a fixture of the character described, in combination, a support, a socket cover and shade holder comprising a dome-shaped top section, and a lower section separable from said upper section and having shade-supporting means, said sections having an interlocking connection, and a reinforcing shell rigidly supported on said support and located within said top section and overlapping and engaging said interlocking connection.

5. In a fixture of the character described, a support, a lamp socket supported by the support, a socket cover and shade holder

comprising a dome-shaped top section, and a lower section separable from said upper section and having shade-supporting means, said sections having an interlocking connection, and a reinforcing shell supported on said support and extending between the socket and said top section, said reinforcing shell overlapping said interlocking connection and engaging said connection and the lamp socket.

6. In a fixture of the character described, a support, a coupling connected to said support, a socket supported by said coupling, a socket cover and shade holder comprising a dome-shaped top section held between said coupling and the support, and a lower section having shade-supporting means, said sections having an interlocking connection comprising parts integral with said sections, and a rigid dome-shaped shell rigidly supported on said coupling and extending between the socket and said top section, and overlapping said interlocking connection and engaging said socket and the parts forming said connection.

7. In a fixture of the character described, a support, a coupling member engaging the same, a socket cover and shade holder supported by the coupling member, and comprising an upper tubular section and a lower tubular section having cooperating flanges, and shoulders at the bases of said flanges respectively, lugs on the flange of one of said sections, and indented bayonet grooves in the flange of the other of said sections, and a substantially rigid dome-shaped member within said upper section and supported by said coupling and having its free edge extending to overlap and engage said interlocking connection to brace and stiffen the same.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MERTON P. STEVENS.

Witnesses:

H. D. MURPHY,
M. J. BEDFORD.