H. V. S. NEGUS.

LIGHTING FIXTURE.

APPLICATION FILED OCT. 20, 1916.

1,215,838. Patented Feb. 13, 1917.

Fig. 1.

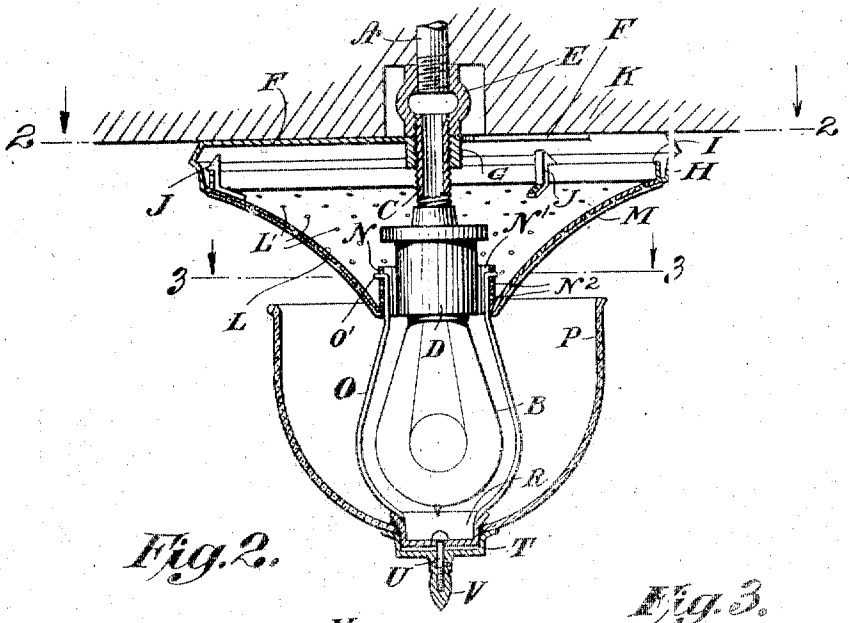


Fig. 2.

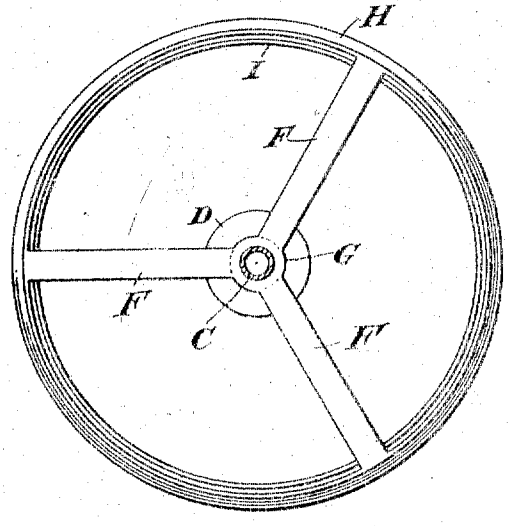
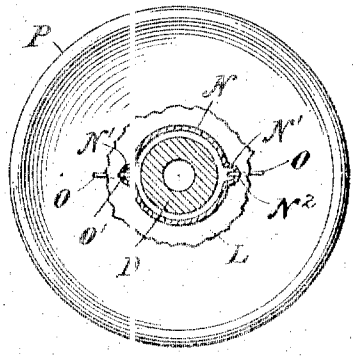


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

HORATIO V. S. NEGUS, OF BOUNDBROOK BOROUGH, NEW JERSEY.

LIGHTING-FIXTURE

1,215,838. Specification of Letters Patent. Patented Feb. 13, 1917.

Application filed October 20, 1916. Serial No. 126,616.

To all whom it may concern:

Be it known that I, HORATIO V. S. NEGUS, a citizen of the United States, and a resident of Boundbrook Borough, in the county of Somerset, State of New Jersey, have invented certain new and useful Improvements in Lighting-Fixtures, of which the following is a specification.

The improvements relate primarily to lighting fixtures, and particularly fixtures designed to effectuate what is known as the indirect lighting system, although they may be used for illumination of other character. They are designed to accomplish various objects, and among them the improvement of the details of construction of the fixture in the matters of strength, lightness and easy assemblage of the parts; to give the fixture an attractive appearance, and to afford opportunities for variations in size and design; and to make some of the parts adjustable and easily detachable to meet various conditions.

The improvements are illustrated in the accompanying drawings, in which Figure 1 is a vertical medial section of a lighting fixture embodying the improvements; Fig. 2 is a plan of the same detached with the electric wire conduit in horizontal section on the line 2—2 of Fig. 1; Fig. 3 is a horizontal section on the line 3—3 of Fig. 1 looking in the direction indicated by the arrows.

The tube A is supported from the floor beams or other part of the building frame and provides a conduit for the insulated wires supplying current to the incandescent lamp B and extending through the exteriorly threaded tube C and the usual lamp socket D. The pipe A supports the fixture through the connecting collar or "hickey" E, which is interiorly threaded and receives the exteriorly threaded lower end of the pipe A and upper end of the pipe C. The spider F has a central threaded collar G threaded on the pipe C, by means of which it may be adjusted and made to fit snugly against the ceiling K. It has a depending annular flange or rim H, preferably of ornamental form, forming the top ring of the fixture, and this ring H has an upturned inner edge I to receive the spring catches J attached to the upper edge of and supporting the reflector.

The reflector L consists preferably of a piece of sheet metal, of inverted truncated cone form, with an exterior coating M of reflective material applied thereto in a plastic or fluent state so that a part of the said material passes through the perforations L′ and forms a secure and intimate union.

The plate L has an upturned central collar N provided with vertical grooves or recesses N′, preferably located at diametrically opposite points, and perforations N² therein. The prime objects and purposes of this collar are to surround the socket D and to receive the upper out-turned ends O′ of the spring wire loop O, by which the bowl-shaped shade or globe P is supported. The said shade is clamped at its central aperture between the cup-shaped disks R and T, the former being secured to the lower ends of the wire loop O, by means of the screw-bolt U passing through the said disks centrally and having an ornamental nut V on its lower extremity.

In this manner a fixture of strong, compact and attractive character is made, which may be varied in size and external appearance as desired, and may be quickly and easily assembled and placed in position for use. The last mentioned advantage is one of considerable importance. Fixtures of this character have frequently to be placed on high ceilings, and the usual and most convenient procedure is to have the workman by whom it is to be installed use a step ladder. This makes it necessary for him to do the work of placing the parts in position above his head at the top of a more or less insecure support, and as the parts of these fixtures frequently have considerable bulk and weight the work is difficult and somewhat dangerous and involves loss of time and occasional injury or destruction to parts of the fixture. With the present improvements it is only necessary to screw the collar G of the spider in place and then press the reflector up inside the ring H until the spring catches engage the upturned edge I, then pass the ends of the loop O into the grooves N′ until they engage the perforations N². This is done by slightly compressing the wires, passing them into the groove and allowing them to expand when they have reached the desired height. If the globe has not been secured to the wire O it may now be secured by placing it on the cup T and raising the said cup to its position beneath the part R so that the bolt U extends therethrough and then securing

the nut V. The height of the globe may be adjusted to meet various conditions, as the height of the ceiling and the angle at which the light is to be diffused, by means of the perforations N^2 at different levels. It will be understood also that the socket is placed in position before the reflector M is hung and that the bulb B may be placed in position or removed at any time thereafter.

The fact that the reflector is placed in position after the spider has been secured, and the socket adjusted and connected before the reflector is placed in position gives the workman an open space in which to make the necessary electric connections.

A quick assemblage and the ease with which the parts may be disconnected is another great advantage, since it enables the manufacturer to make up reflectors, bowls, and other parts in various sizes, colors and shapes, and assemble them in a manner calculated to produce the desired effect or to replace them if a different effect is desired.

Various details of construction may be employed, and the parts herein described and shown replaced by other parts without departing from the spirit and scope of the invention. It will also be understood that the particular location of the fixture is not essential, and that it may be arranged at any point in the room where it can be used to advantage.

What I claim is:

1. In a device of the character described, the combination of a tube constructed to be supported in a substantially vertical position from a ceiling or the like, a lamp supported thereon and electric light service conductors therein, of a ring, members extending inwardly therefrom to a medial supporting point, and a collar at said point threaded on the exterior of said tube, whereby the ring and its said parts are supported and provided with vertical adjustment, the said ring having an inwardly projecting portion, a reflector consisting of an inverted cone-like metal member having a reflective under surface and whose diameter is approximately equal to the internal diameter of the ring, members projecting from the upper edges of said reflector beyond the inner edge of said inwardly projecting portion, constructed and arranged to overlie the same when passed to a position thereabove, whereby the said reflector is removably supported by the said inwardly projecting portion on the said ring.

2. In a device of the character described, the combination of a tube constructed to be supported in a substantially vertical position from a ceiling or the like, a lamp supported thereon and electric light service conductors therein, of a ring, members extending inwardly therefrom to a medial supporting point, and a collar at said point threaded on the exterior of said tube, whereby the ring and its said parts are supported and provided with vertical adjustment, the said ring having an annular inturned portion, a reflector consisting of an inverted cone-like member having an upper metallic layer and an under layer made of plastic material, and whose diameter is approximately equal to the internal diameter of the ring, spring members projecting from the upper edges of said reflector and constructed to be flexed by contact with said inturned portion and to extend beyond and over the same when the said upper edges of the reflector are pressed in contact with the ring, whereby the said reflector is secured to the ring by pressing it against the same and causing the said spring fasteners to engage.

3. In a device of the character described, the combination of a tube constructed to be supported in a substantially vertical position from a ceiling or the like, a lamp supported thereon and electric light service conductors therein, of a ring, members extending inwardly therefrom to a medial supporting point, and a collar at said point threaded on the exterior of said tube, whereby the ring and its said parts are supported and provided with vertical adjustment, the said ring having an annular inturned portion, a reflector consisting of an inverted cone-like member having an upper metallic layer and an under layer made of plastic material, and whose diameter is approximately equal to the internal diameter of the ring, spring members projecting from the upper edges of said reflector and constructed to be flexed by contact with said inturned portion and to extend beyond and over the same when the said upper edges of the reflector are pressed in contact with the ring, whereby the said reflector is secured to the ring by pressing it against the same and causing the said spring fasteners to engage, a collar extending upwardly from the interior of the said reflector, the said reflector being provided with an opening surrounded by the said collar, a portion of the lamp being located in and held against lateral movement by the collar, and a globe surrounding the lamp suspended from said reflector.

4. In a device of the character described, the combination of a tube constructed to be supported in a substantially vertical position from a ceiling or the like, a lamp supported thereon and electric light service conductors therein, of a ring, members extending inwardly therefrom to a medial supporting point, and a collar at said point threaded on the exterior of said tube, whereby the ring and its said parts are supported and provided with vertical adjustment, the said ring having an annular inturned portion, a reflector consisting of an inverted cone-like member having an upper metallic

layer and an under layer made of plastic material, and whose diameter is approximately equal to the internal diameter of the ring, spring members projecting from the upper edges of said reflector and constructed to be flexed by contact with said inturned portion and to extend beyond and over the same when the said upper edges of the reflector are pressed in contact with the ring, whereby the said reflector is secured to the ring by pressing it against the same and causing the said spring fasteners to engage, a collar extending upwardly from the interior of the said reflector, the said reflector being provided with an opening surrounded by the said collar, a portion of the lamp being located in and held against lateral movement by the collar, spring members adapted to be compressed and passed into the said collar under tension, said collar having recesses at different levels to receive the same, and a globe supported by said spring members.

5. In a device of the character described, the combination of a tube constructed to be supported in a substantially vertical position from a ceiling or the like, a lamp supported thereon and electric light service conductors therein, of a ring, members extending inwardly therefrom to a medial supporting point, and a collar at said point threaded on the exterior of said tube, whereby the ring and its said parts are supported and provided with vertical adjustment, the said ring having an annular inturned portion, a reflector consisting of an inverted cone-like member having an upper metallic layer and an under layer made of plastic material, and whose diameter is approximately equal to the internal diameter of the ring, spring members projecting from the upper edges of said reflector and constructed to be flexed by contact with said inturned portion and to extend beyond and over the same when the said upper edges of the reflector are pressed in contact with the ring, whereby the said reflector is secured to the ring by pressing it against the same and causing the said spring fasteners to engage, a collar extending upwardly from the interior of the said reflector, the said reflector being provided with an opening surrounded by the said collar, a portion of the lamp being located in and held against lateral movement by the collar, spring members adapted to be compressed and passed into the said collar under tension, said collar having recesses to receive the same, and a globe supported by said spring members.

6. In a lighting fixture the combination of a lamp, a reflector constructed to be suspended from the ceiling, said reflector having a central aperture through which the lamp extends, and provided with recesses to receive globe supporting members, globe supporting members arranged to engage said recesses on being pressed into the central aperture of the reflector, and a globe clamping device supported by the said members, said globe clamping device comprising members arranged to engage two surfaces of the globe, a bolt extending through them and a movable device on said bolt for pressing them toward each other, the said device and portion of the bolt with which it is connected being below the globe, the construction and arrangement being such that the reflector is placed in position by upward movement, the globe hung thereon by upward movement and the globe clamped to its supporter by the manipulation of a device extending from the lower part of the fixture.

7. A lighting fixture consisting of a ring adapted to be detachably hung from the ceiling, a reflector detachably supported thereby and extending inwardly and downwardly therefrom, connections between the reflector at its outer edge and the ring at its inner edge, an inverted bowl or globe suspended from said reflector and adapted to surround an illuminating device and a connection between the said globe and reflector, the connections between all of said parts and between the ring and its support being made by upward movement of the said part.

8. The combination of a ring constructed to be placed in proximity to the under surface of a ceiling or the like, and having a portion adapted to be placed in contact with said ceiling and a portion extending downwardly therefrom, a member adapted to be secured to a building substantially at the ceiling line, a detachable connection between said member and ring whereby the latter is supported on the former, a reflector extending inwardly and downwardly from said ring and a detachable connection between said reflector and ring, a globe or bowl below the said reflector and adapted to inclose a lamp, a detachable connection between said globe and the reflector whereby the globe is supported on the reflector, the said connections being so constructed and arranged that the uppermost connection may be first made independent of the other parts or connections, and the part thus secured and supported before the next lower connection is made, and the next lower connection may be then similarly made, and so on until the fixture is completely assembled.

9. The combination of a ring constructed to be placed in proximity to the under surface of a ceiling or the like, and having a portion adapted to be placed in contact with said ceiling and a portion extending downwardly therefrom, a member adapted to be secured to a building substantially at the ceiling line, a detachable connection between

said member and ring whereby the latter is supported on the former, a reflector extending inwardly and downwardly from said ring and a detachable connection between said reflector and ring, a globe or bowl below the said reflector and adapted to inclose a lamp, a detachable connection between said globe and the reflector whereby the globe is supported on the reflector, the said connections being so constructed and arranged that the uppermost connection may be first made independent of the other parts or connections, and the part thus secured and supported before the next lower connection is made and the next lower connection may be then similarly made, and so on until the fixture is completely assembled, and the said connections being also constructed to be made by upward movement of the parts supported thereby.

10. The combination of a ring constructed to be placed in proximity to the under surface of a ceiling or the like, and having a portion adapted to be placed in contact with said ceiling and a portion extending downwardly therefrom, a member adapted to be secured to a building substantially at the ceiling line, a detachable connection between said member and ring whereby the latter is supported on the former, a reflector extending inwardly and downwardly from said ring and a detachable connection between said reflector and ring, a globe or bowl below the said reflector and adapted to inclose a lamp, a detachable connection between said globe and the reflector whereby the globe is supported on the reflector, the said connections being so constructed and arranged that the uppermost connection may be first made independent of the other parts or connections, and the part thus secured and supported before the next lower connection is made and the next lower connection may be then similarly made, and so on until the fixture is completely assembled, the connection between the globe and reflector being such that the said globe may be rigidly supported at different levels.

Witness my hand this 17th day of October, 1916, at the city of New York, in the county and State of New York.

HORATIO V. S. NEGUS.