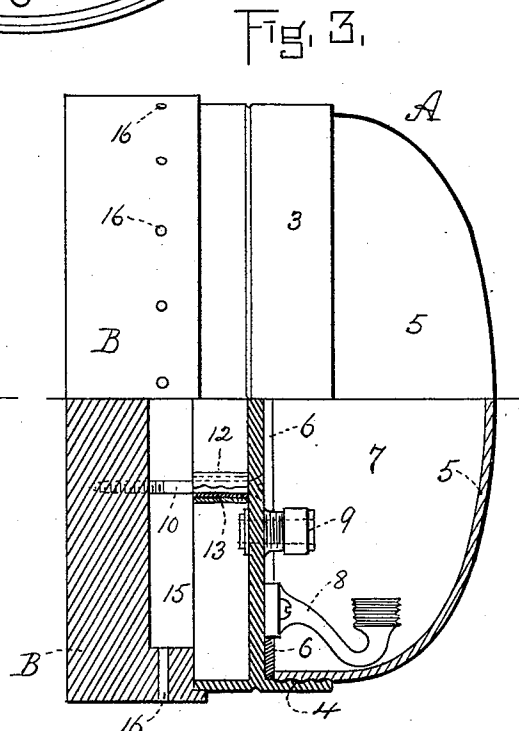
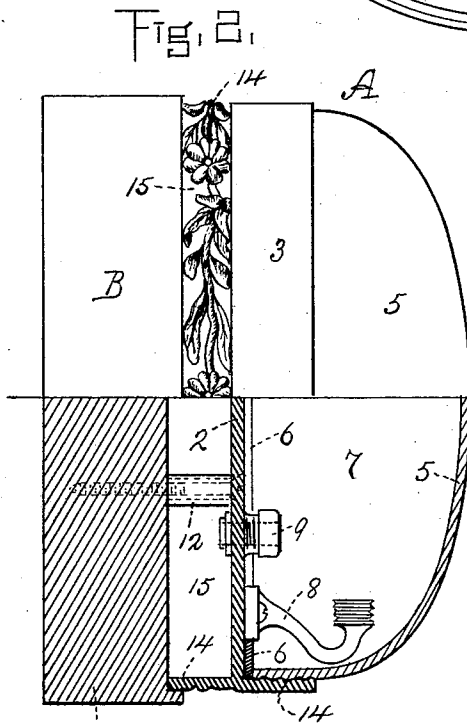
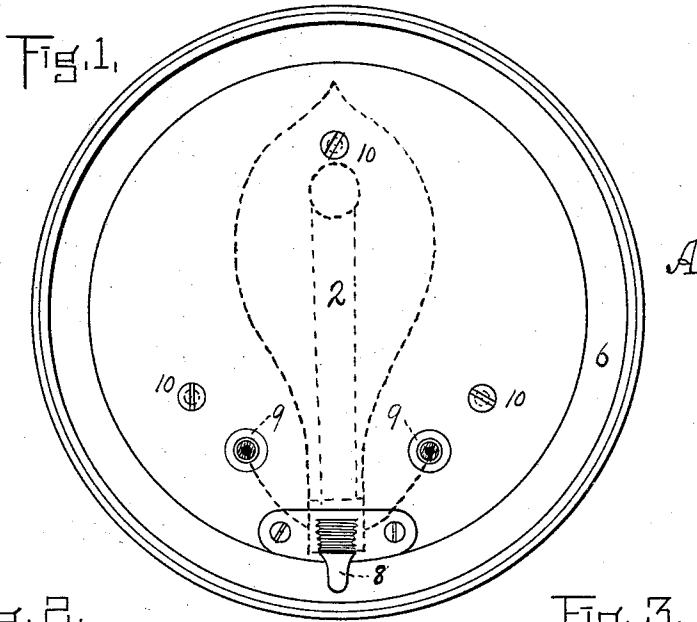


(No Model.)

D. S. PAGE.
ELECTRIC LIGHT FIXTURE.

No. 484,450.

Patented Oct. 18, 1892.



Witnesses.
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UNITED STATES PATENT OFFICE.

DANIEL S. PAGE, OF MALDEN, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND ALBERT N. PAGE, OF SAME PLACE.

ELECTRIC-LIGHT FIXTURE.

SPECIFICATION forming part of Letters Patent No. 484,450, dated October 18, 1892.

Application filed December 12, 1891. Serial No. 414,795. (No model.)

To all whom it may concern:

Be it known that I, DANIEL S. PAGE, a citizen of the United States, residing at Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Electric-Light Fixtures; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

15 This invention relates to electric-light fixtures, more particularly those employed in connection with incandescent lights.

20 The object of my invention is to enable an incandescent lamp to be placed in locations where it may be subjected to the effects of steam or to streams of water under pressure, or in exposed places on vessels, where a heavy sea or wind would be liable to break the glass bulb in which is contained the carbon filament.

25 My invention consists, primarily, in providing a steam or water tight chamber, in which is inclosed the incandescent lamp, and, further, in so forming this metallic casing as to present the least surface for heat by convection, and likewise to create an air-space between the said casing and the wood or other material to which the lamp-fixture is to be attached.

30 The drawings accompanying this specification represent, in Figure 1, a plan of an electric-light fixture embodying my invention. Fig. 2 is a sectional elevation of the same. Fig. 3 is a like view showing a modified form of block-support.

40 The particular class of electric-light fixtures to which my invention pertains is termed "ceiling-fixtures," since they are peculiarly adapted for attachment to the ceiling of any room or passage-way. They are equally capable of use on bulkheads or in any exposed place in boiler-rooms, or on the decks of vessels, where a light is required to remain in an exposed position.

50 The fixture as an entirety is shown at A, composed of a circular metallic plate 2 with rim 3, interiorly screw-threaded at 4 to re-

ceive a semispherical, oval, or semielliptical glass or other transparent cover or cup 5. This glass is to be of considerable thickness to withstand ordinary shocks or exposure to streams of water or jets of steam. A gasket 6 is placed upon the inner face of the plate 2, and hence when the glass cup is screwed into place a chamber 7 is created, which is steam and water tight. A bracket 8 is fastened to the fixture within the chamber and adapted to receive the bulb with the carbon filament. The said bulb or lamp proper is removable and has electric connection with the generator by means of two tubular plugs 9, through which are passed the conducting-wires. These latter may be surrounded with packing of some sort to completely and tightly fill the plugs and prevent the passage of steam or water therethrough.

70 In the present instance I have shown the fixture attached to a circular standard or block B of good non-conducting material by means of screws 10, which pass through tubular bosses 12, furnished, if desired, with some yielding packing 13; but this is not requisite as the small amount of steam or water entering through them would not injure or destroy the bulb.

80 To obviate any danger which might arise by the convection of heat from the light to the material or woodwork upon which the fixture is secured, I have formed or cast upon the plate 2 an open flange or web 14, preferably in some ornamental design, which acts as a support or base for the said fixture. In this way I cause the metallic plate to present the minimum amount of surface to the block upon which it rests, while the air-space 15, which exists between said block and the face of the plate 2, effectually prevents the effects of heat by convection or radiation. By this arrangement the factor of safety is increased, since the air-currents passing beneath the fixture and between the latter and the material on which it rests effectually prevent all danger of fire.

95 As before premised, the gist of my invention is to create a steam and water tight chamber formed, preferably, in part of a transparent and in part of an opaque substance, the glass portion being of sufficient strength to

effectually resist the effects of a jet of steam or a body of water projected thereagainst, and thus protects the glass bulb from any injurious results occasioned by its being placed in exposed situations.

This fixture is peculiarly adapted for marine purposes or in boiler-rooms or other localities where the liability to a sudden injury and destruction of the lamp may occur at any time. By making the glass cup removable the lamp may be changed, others of different candle-power substituted, and the interior of the chamber cleansed with great facility.

In Fig. 3 is shown a modified construction in the web or flange support of the fixture, which, in lieu of being open, as in Fig. 2, is solid, while the block B is recessed to form an air-space 15. Air-ducts 16 are bored to allow free circulation. The spirit of my invention enters in both constructions, only in one the air-currents pass through the openings or interstices in the flange 14, while in the other instance they flow through the block. In both cases, however, an air-space exists between the lamp-fixture and the material to which it is affixed, while a minimum surface is presented to said material for the convection and radiation of heat from the lamp thereupon.

What I claim is—

1. The combination, with a rimmed or flanged metallic plate adapted to support an incandescent electric lamp and a transparent cup or cover removably secured thereto, of a base or block to which said plate is attached

and between which and said plate is formed an air space or chamber, the outer wall of which between said plate and said base or block is provided with transverse openings communicating with said air space or chamber to afford a circulation of air behind said lamp-supporting plate.

2. The combination, with the metallic lamp-supporting plate 2, having the rim or flange 3 at its front side and the open-work flange or web 14 at its rear side, of the transparent cup or cover 5, removably secured to said flange 3 and forming an air-tight chamber, in which the incandescent lamp is placed, and a base or block B, to which said plate is attached and between which and said plate is formed an air-space 15, surrounded by said open-work flange 14.

3. In combination with an electric-light fixture having a steam and water tight chamber composed of a rimmed plate or disk, a cap or cover removably affixed thereto, and an open web or support, a block secured to said fixture and separated therefrom by an air-space, a bracket within said chamber to hold the electric lamp, and means for the entrance and exit of wires conveying the current, substantially as specified.

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

DANIEL S. PAGE.

Witnesses:

H. E. LODGE,

ALBERT N. PAGE.