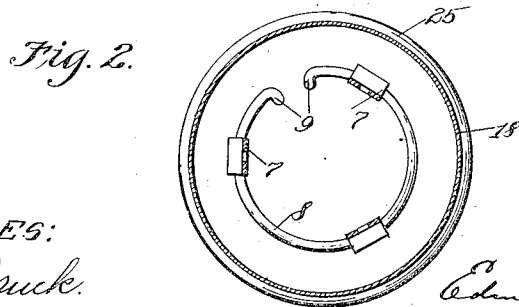
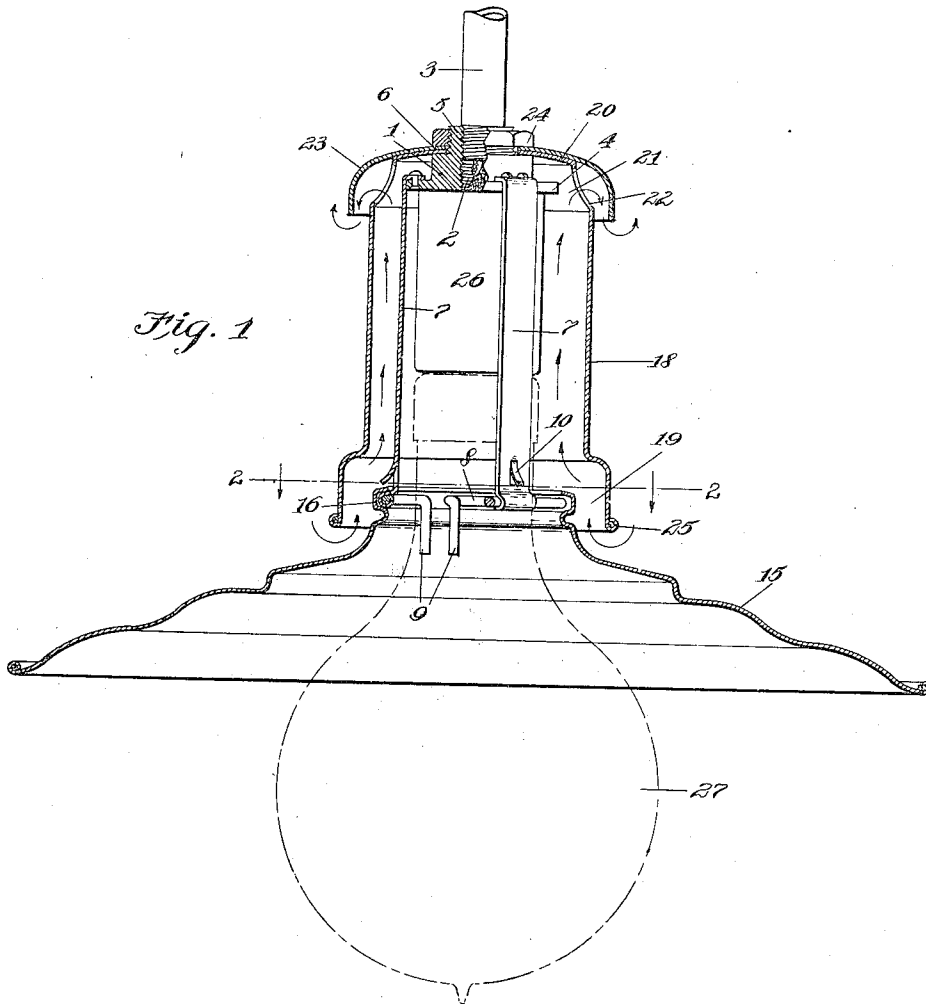


E. F. MOULD.
SHADE HOLDER.
APPLICATION FILED JUNE 19, 1914.

1,210,673.

Patented Jan. 2, 1917.
2 SHEETS—SHEET 1.



WITNESSES:

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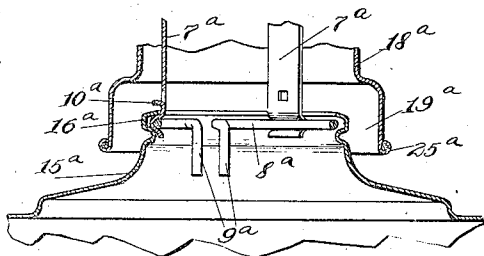


Fig. 3.

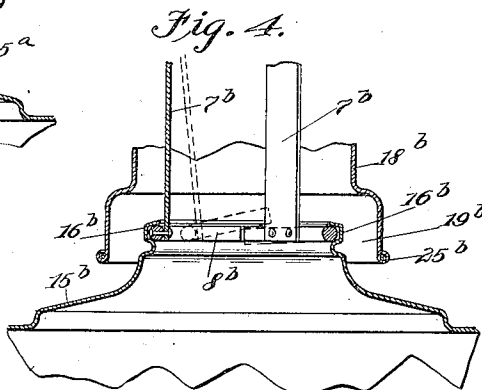


Fig. 4.

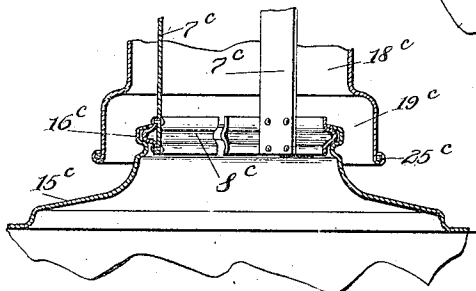


Fig. 5.

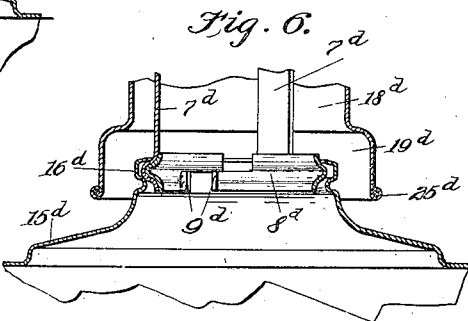


Fig. 6.

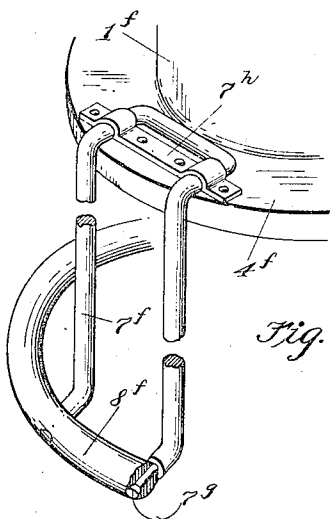


Fig. 8.

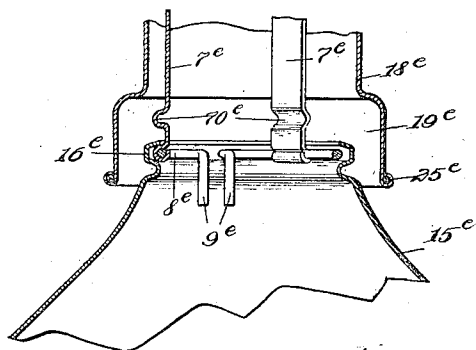


Fig. 7.

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UNITED STATES PATENT OFFICE.

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SHADE-HOLDER.

1,210,673.

Specification of Letters Patent.

Patented Jan. 2, 1917.

Application filed June 19, 1914. Serial No. 346,181.

To all whom it may concern:

Be it known that I, EDMUND F. MOULD, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Shade-Holders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to an improved shade-holder that is especially adapted for use in connection with electric lights; and it has for its objects to provide a shade holder which is comparatively simple of construction; which is very convenient of use; which is efficient in supporting the shade against displacement and in proper relation to a light; which is inclosed in a ventilated casing which forms a part of the shade-holder and which renders the device neat and attractive of appearance and which effectively protects the inclosed parts from the weather when the holder is used in exterior lighting; and which is constructed in a manner that will allow the casing to be removed without disturbing the shade supporting parts.

My invention has as a more limited object, the provision of a shade-holder that comprises an expansible member for coöperation with a shade having opposed abutment surfaces that are preferably formed by a neck of inwardly opening channel formation, the expansible member being adapted to occupy the channel when the former is expanded and bear against said abutment surfaces. This construction allows the shade to be very conveniently attached and detached, and provides for the concealment of the shade engaging parts. The casing, previously mentioned, incloses the shade-holder and the electric light socket, and is so constructed as to thoroughly ventilate the inclosed space.

In the accompanying drawings, wherein similar reference characters designate corresponding parts throughout the several views, Figure 1 represents a sectional side elevation of my improved shade holder, the casing thereof and the shade being shown in central section, while the shade-holder proper is shown partially in elevation; Fig. 2 is a horizontal section on the line 2-2 of Fig. 1 and looking down; Fig. 3 is a central, vertical section through adjacent portions

of the shade-holder and shade of a modified form of my invention; Figs. 4, 5, 6 and 7 are similar views of further modifications of my shade-holder; and Fig. 8 is a detail, in perspective, of still another form thereof.

I will first describe the form shown in Figs. 1 and 2, wherein 1 represents a supporting member having a central, vertical internally threaded bore 2 for the reception of the threaded lower end of the conduit 3. I have shown the supporting member 1 as circular, with a lateral flange 4 extending outwardly from its lower end, and the upper end of the supporting member is reduced in diameter and externally threaded to form a neck 5 between which, and the body portion of the member, there is formed a shoulder 6. Riveted, or otherwise secured to the lateral flange 4 of the supporting member, are the intumed upper ends of flexible metal tongues 7 which have their lower ends turned outwardly at substantially right angles to their vertical portions and then downwardly and about a spring wire ring 8. The spring ring 8 is incomplete, its ends being turned inward and downward to form finger pieces 9 which are normally spaced apart. A short distance above where the tongues 7 turn about the wire, whereof the ring 8 is formed, the tongues are slotted, and the material which is stamped from the slots is pressed outward to form stops 10 for a purpose which will become apparent farther along in this description. The shade, which is designated 11, may be of any desired shape, having what I have previously referred to as abutment surfaces that are preferably formed by a neck of inwardly opening channel formation, as shown at 16. When the shade is supported by the holder, the lower portions of the tongues 7, which turn about the ring 8, are projected into the channel 16 of the shade and against the abutment surfaces thereof, by the action of the spring ring 8. In applying the shade, the ring 8 is contracted by pressing together the finger pieces 9, and the neck of the shade may then be passed up over the ring until its upper edge engages the stops 10, when the ring may be released to expand and project the ends of the tongues into the channel, as aforesaid. 18 represents a substantially cylindrical casing that is enlarged at its lower end, as shown at 19, and has a top wall 20 that is connected to the cylindrical

wall of the casing by a frusto-conical portion 21 that is provided with perforations 22. The upper end of the casing is slightly dished, and is provided with a central aperture that is arranged to be passed down over the neck 5 of the supporting member 1. A cap 23, that is dished to conform to the upper end of the casing 18, has a central aperture that also fits down over the neck 5, allowing the cap to rest upon the end of the casing. The portion of the cap adjacent its periphery is curved downward until its lower edge is below the plane of the lower edges of the perforations 22. The cap and the casing are clamped against the shoulder 6 of the supporting member 1 by a nut 24 that is threaded onto the neck 5. It will be observed that the lower edge of the casing is wired at 25, for strengthening purposes, and that said end of the casing is spaced from the neck of the shade, whereby a free passage of air is permitted between the casing and the shade, upward into the casing, from where it may escape through the perforations 22 and beneath the lower edge of the cap 23. Attached, in any suitable manner, to the underneath side of the supporting member 1, is a lamp socket 26 of ordinary form, that is adapted to receive the screw plug of the electric lamp 27, that is shown in dot-and-dash lines in Fig. 1.

It is obvious from the foregoing description that the parts contained within the casing 18 are thoroughly protected, as from rain or snow, if the device is used in exterior electric lighting, and at the same time the parts inclosed by the casing are prevented from becoming overheated because of the effective ventilation of the casing. Now should it be found necessary to remove the casing for the purpose of inspecting or repairing the parts inclosed thereby, it is only necessary to remove the nut 24, which will allow the cap 23 and the casing 18, along with said nut, to be slid up along the conduit 3, leaving the shade holder, the socket, etc., easily accessible.

So far, I have described the tongues 9 as flexible and the ring 8 as resilient, for it is immaterial whether or not the metal from which the tongues 7 are made is resilient, since their lower ends are connected positively to the spring-ring 8, and therefore follow it in its movements. In the modified form of my invention shown in Fig. 3, however, the lower ends of the tongues 7^a are simply curved outward and then inward again to form semi-cylindrical recesses for the reception of a portion of the spring ring 8^a, wherefore it is necessary that the tongues be of spring material, also, in order that they follow the ring 8^a when the same is contracted. The action of this form of my invention is the same as that previously described; and the stops 10^a are formed in precisely the same

manner as the stops 10 of the aforesaid modification, except that the tongues which form the stops are connected at the lower ends of the slots. The remaining parts of the structure are the same as the corresponding parts of the form shown in Figs. 1 and 2, and for that reason I will use the same reference characters to identify them in Fig. 3, with the addition of the exponent "a" to each. This same plan will be carried out in describing the remaining forms of my device, a different exponent being used in connection with each form.

In Fig. 4 the lower end of the flexible tongues 7^b are shown as riveted to a vertically split ring 8^b, the ends whereof are adapted to overlap, as shown in dotted lines, when the ring is contracted for the purpose of inserting it into or withdrawing it from the neck of the shade. It will be noted in this form, however, that the ring 8^b itself contacts with the interior of the channel neck 16^b of the shade, instead of portions of the tongues 7^b, as was the case in the foregoing forms.

In Fig. 5 a pressed metal, vertically split ring 8^c is shown as riveted to the lower ends of the tongues 7^c, in which case, as in the form shown in Fig. 4, either or both the tongues and the ring may be of spring material. In the last mentioned form, the ring 8^c is contracted by pressing one end of the ring inward to overlap the other end thereof.

Fig. 6 shows a spring ring 8^d of somewhat the same cross sectional shape as the ring 8^c; but this ring has its upper half cut away some distance from one of its ends, while its lower half is cut away a similar distance back from its opposite end so that the remaining portions of the ends overlap and slide one upon the other, as the ring is contracted and expanded by manipulating the finger pieces 9^d. In this modification, as in the ones shown in Figs. 1 to 3, the lower ends of the tongues 7^d are formed to receive the ring 8^d and because, in this form, the parts are held together only because of their opposed forces, the tongues 7^d must necessarily be of resilient material.

It is well known to those familiar with the art of illumination, that the angle of reflected rays may be varied by altering the position of the reflector with respect to the source of light. For instance, to concentrate the rays of light, the reflector may be moved farther back of the light; while a reversal of this condition causes the rays of light to spread through a wider angle. Therefore it is desirable to include, in my holder, a means of adjustment between the light and the shade or reflector, and an arrangement whereby such an adjustment may be attained is shown in that form of my holder illustrated in Fig. 7. Upon referring

to said figure it will be seen that the lower ends of the tongues 7^a encircle the spring ring 8^a in practically the same manner as the tongues 7 encircle the ring 8 in the form shown in Fig. 1. A suitable distance above the ring 8^a, each of the tongues 7^a is provided with a shade-engaging bead 70^a that is produced by pressing a portion of the tongue outward. In all other respects, this form of my shade holder is identical with the form shown in Fig. 1, except that the stops 10 are omitted from the last described modification. In this construction, either the lower ends of the tongues 7^a, or their beads 70^a, may occupy the neck of the reflector 15^a, whereby an adjustment is provided for the purpose of varying the scope of the reflected light, as previously set forth.

In the modification shown in Fig. 8, the tongues 7ⁱ (only one of which is shown in said figure) are formed of U-shaped wire members, and the lower end of each branch of each of the wire members is reduced in diameter and passes through the spring ring 8ⁱ where it is riveted, as shown at 7^h. The inturned upper end of each U-shaped tongue is secured to the flange 4ⁱ of the supporting member 1ⁱ, by a strap-metal clip 7^h that is riveted, or otherwise secured, to the flange 4ⁱ. In Fig. 7 I have shown the parts on an enlarged scale, as compared with the showings in the other figures, and for economy of space, the view has been contracted by breaking out a portion of the tongue 7ⁱ. A casing may be attached to this form of my shade-holder, the same as to the other forms thereof.

While I have described the shade-holder as involving the casing, I wish to make it clear that I contemplate the use of my improved holder without the casing, in those instances where the ornamental and finished effect produced by the casing is unnecessary, and where the holder is not exposed to the elements.

Having thus described my invention, what I claim is:

1. The combination with a shade having inwardly facing abutment surfaces, an expansible and contractible holder therefor adapted to coöperate with said abutment surfaces comprising an expansible and contractible ring and inwardly and outwardly flexible members to which said ring is connected.

2. The combination with a supporting member, of a plurality of depending flexible members the lower ends of which are capable of movement toward and away from each other, an expansible and contractible ring connected with said lower ends, and a casing connected with said supporting member and enveloping the depending flexible members and ring.

3. The combination with a shade having

abutment surfaces, of a holder therefor comprising an expansible member for coöperation with said abutment surfaces, a supporting member having an extension, a plurality of flexible members connecting the supporting member and the expansible member, a casing for inclosing the supporting member, the connecting members and the expansible member and having an open bottom and a top wall that is provided with an aperture for the reception of the aforesaid extension, and means for retaining said extension within the aperture of the casing.

4. The combination with a shade having abutment surfaces, of a holder therefor comprising an expansible member for coöperation with said abutment surfaces, a supporting member having an extension, a plurality of flexible members connecting the supporting member and the expansible member, a casing for inclosing the supporting member, the connecting members and the expansible member and having an open bottom and a top wall that is provided with an aperture for the reception of the aforesaid extension, a cap for application to the upper end of the casing and having an aperture for the reception of the extension, and means for retaining the extension within the apertures of the cap and the casing.

5. The combination with a shade having a neck of inwardly opening channel formation, of a holder therefor comprising an expansible member that is adapted to occupy the neck of the shade, a supporting member having an extension at its upper end and a lateral flange adjacent its lower end, a plurality of flexible members that have their upper ends connected to the flange of the supporting member and their lower ends attached to the expansible member, a casing for inclosing the supporting member, the flexible members and the expansible member and having an open bottom and a top wall that is provided with a substantially central aperture for the reception of the aforesaid extension, and means for retaining said extension within the aperture of the casing.

6. The combination with a shade having a neck of inwardly opening channel formation, of a holder therefor comprising an expansible member that is adapted to occupy the neck of the shade, a supporting member that has an extension at its upper end, a plurality of flexible members connecting the supporting member and the expansible member, a casing for inclosing the supporting member, the flexible members and the expansible member and having its lower end open and a top wall that is provided with a substantially central aperture for the reception of the aforesaid extension, the casing having a series of openings adjacent its upper end, a cap for application to the upper end of

the casing and having an aperture that is adapted to receive said extension, and means for retaining the cap and casing upon the extension.

- 5 7. The combination with a shade having a neck of inwardly opening channel formation, of a holder therefor comprising an ex-
pansible member that is adapted to occupy the neck of the shade, a supporting member
10 having a threaded extension at its upper end and a lateral flange adjacent its lower end, a plurality of flexible members connecting said flange with the expansible member, a casing for inclosing the supporting
15 member, the flexible members and the expansible member and having an open bottom and a top wall that is provided with a substantially central aperture for the reception of the aforesaid extension, the casing
20 being provided with a series of openings adjacent its top wall, a cap that surmounts the casing and having a portion adjacent its periphery that extends down over the upper end of the casing, the cap hav-
25 ing an aperture for the reception of the extension of the supporting member, and a nut for application to said extension whereby the cap and the casing may be clamped to the supporting member.
- 30 8. The combination with a shade having a neck of inwardly opening channel formation, of a holder therefor comprising an incomplete spring ring the ends whereof are turned inward and then downward, a sup-
35 porting member having a threaded extension, a plurality of flexible tongues which have their upper ends connected to the supporting member and their lower ends turned outwardly and then downwardly about por-
40 tions of the aforesaid ring, the ring, when it expands, being adapted to press the lower ends of the tongues into the neck of the shade, a substantially cylindrical casing member having an enlarged open lower end
45 and a top wall that is provided with an aperture for the reception of the extension of the

supporting member, the casing being provided with a series of openings adjacent its top wall, a cap that surmounts the casing and having a portion which extends down- 50
wardly alongside the casing to a plane below the aforesaid opening and an aperture for the reception of the aforesaid extension, and a nut for application to the extension whereby the casing and cap are secured to 55 the supporting member.

9. The combination with a shade having abutment surfaces, of a holder therefor comprising a plurality of flexible members each having a series of shade engaging portions 60 for coöperation with the abutment surfaces of the shade.

10. The combination with a shade having abutment surfaces, of a holder therefor comprising a supporting member, a plurality of 65 flexible members depending therefrom, an expansible member to which is connected the free ends of the flexible members each of the flexible members having a series of shade engaging portions, the expansible member 70 acting to force the shade engaging portions of the flexible members into contact with the abutment surfaces of the shade.

11. The combination with a shade having a neck of inwardly opening channel forma- 75
tion, of a holder therefor comprising an expansible member that is adapted to occupy the neck of the shade, a supporting member, and a plurality of flexible members connecting the supporting member and the ex- 80
pansible member, each of the flexible members having a stop that is arranged to be engaged by the neck of the shade when said neck is in substantial alinement with the ex-
pansible member. 85

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

EDMUND F. MOULD.

Witnesses:

BRENNAN B. WEST,
HUGH B. MCGILL.