F. W. WAKEFIELD.

LIGHTING FIXTURE.

APPLICATION FILED JUNE 7, 1915.

1,172,649.

Patented Feb. 22, 1916.

2 SHEETS—SHEET 1.

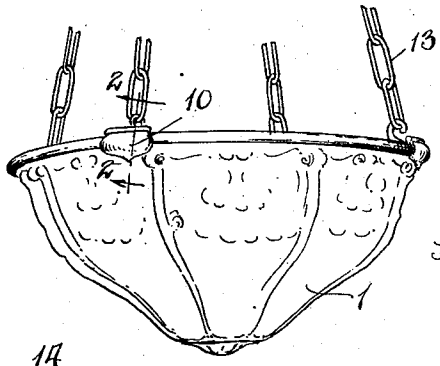


Fig. 1

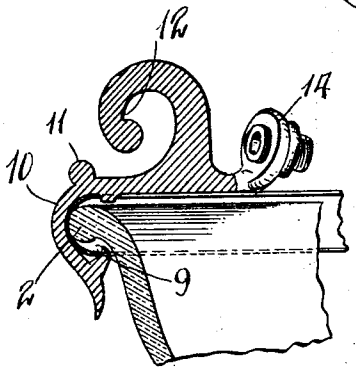


Fig. 2

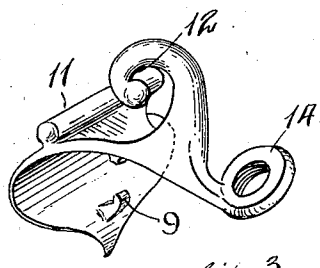


Fig 3

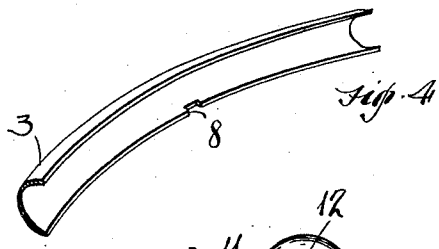


Fig. 4

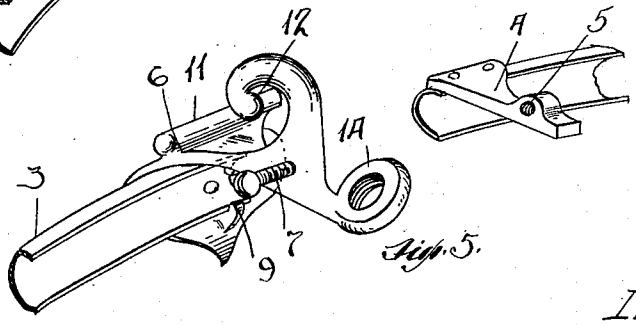


Fig. 5.

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2 SHEETS—SHEET 2.

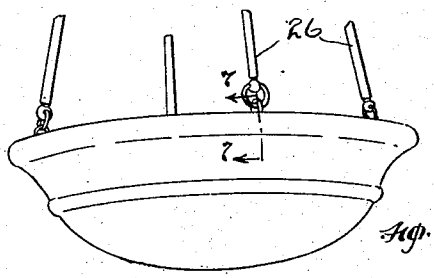


Fig. 6.

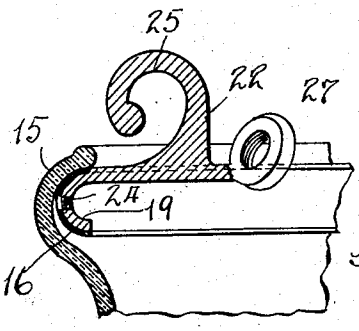


Fig. 7

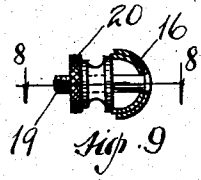


Fig. 9

Fig. 8

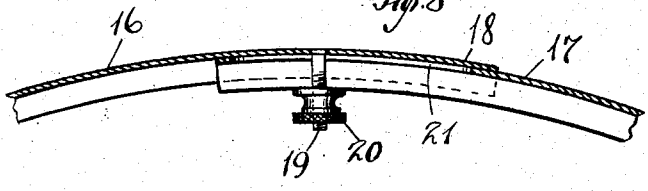
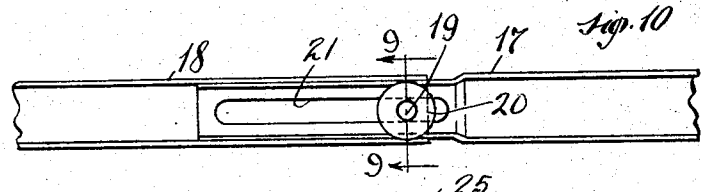


Fig. 10



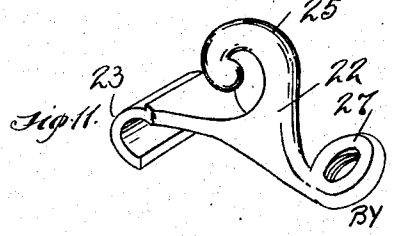


Fig. 11.

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LIGHTING-FIXTURE.

1,172,649. Specification of Letters Patent. Patented Feb. 22, 1916.

Application filed June 7, 1915. Serial No. 32,507.

To all whom it may concern:

Be it known that I, FREDERICK W. WAKEFIELD, a citizen of the United States and a resident of Vermillion, county of Erie, and State of Ohio, have invented a new and useful Improvement in Lighting-Fixtures, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The subject of the present invention is mechanism for use in supporting the bowls of stone or other translucent material which are now in such general use in connection with semi-direct lighting systems in which the greater part of the light is reflected from the bowl against the ceiling, while a small part is transmitted through the translucent material of the bowl. These bowls are ordinarily of considerable weight and have to be firmly supported, and as they vary in size, even when nominally rated at the same diameter, it is necessary to have means which can be adjusted slightly to correspond to the variations in size of the bowls and the means must have firm attachment to the bowl itself.

The present improvements provide a secure means for supporting the bowl and are at the same time simple and relatively inexpensive.

To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawings and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings: Figure 1 is a view in perspective of the bowl supported by an external ring; Fig. 2 is a section on the line 2—2 in Fig. 1; Fig. 3 is a view in perspective of one of the hooks mounted upon the ring; Fig. 4 is a similar view of a portion of the ring; Fig. 5 is a perspective view of adjacent ends of the ring; Fig. 6 is a view in perspective of a similar type of bowl, but supported from within; Fig. 7 is a view similar to Fig. 2 but taken on the line 7—7 in Fig. 6; Fig. 8 is a horizontal sectional view of the ring used in Figs. 6 and 7; Fig. 9 is a transverse section of the ring shown in Fig. 8; Fig. 10 is a side elevation of the ring shown in Fig. 8; Fig. 11 is a perspective view of one of the hooks used in this type of ring.

Referring now to Fig. 1, there is shown a bowl 1 of suitable material, formed with a circumferentially extending curved flange 2 at its upper edge. My improvements include a concave ring 5 extending completely around the bowl and coöperating with the circumferential flange 2 to support the bowl. In the form illustrated in Figs. 1 to 3, this ring 3 is split and upon one of the ends is attached a bracket 4 provided with a threaded opening 5. On the other end of the ring 3 there is a second bracket or hook 6 in which there is mounted a screw 7 adapted to register with and enter the threaded opening 5 in the bracket 4, thus drawing the ends of the ring together and clamping the same securely upon the flange 2 of the bowl. It is customary with such bowls to provide three or more supports either in the form of rods or chains, as here illustrated, and it is of course immaterial whether two, three or more of these supports be used. At intervals around the lower edge of the ring 3 I form notches 8 in which there engage lugs 9 formed upon the inner side of the curved bracket hooks 10. To engage these hooks over the ring, the lug 9 is first inserted in the recess or notch 8 and the hook is then swung around into contact with the outside of the ring, thus bringing a second lug 11 adjacent to the upper edge of the ring. The lugs 9 which are of flexible material, such as soft brass, are then clamped inwardly as illustrated by dotted lines in Fig. 2, thus preventing disengagement of the hook from the ring and maintaining the same in the desired position circumferentially to the ring. The bracket hooks 10 are provided at their upper ends with curved portions 12 adapted to be engaged by the supporting chain 13 as illustrated in Fig. 1, and there are also provided inwardly directed, downwardly sloping lamp sockets 14. It is customary in such bowls to have three or four

lamp bulbs which lie at angles to radial lines passing therethrough, and it will be noticed from the figures referred to that the bulb sockets 14 are so constructed that the bulbs will be arranged in this relation.

In Figs. 6 to 10 I have shown a slightly modified type of ring to be used in connection with a bowl of this type, but lying within the same instead of externally. A bowl of this type is provided at its upper edge with an inwardly curved flange 15 within which there is mounted a split ring 16 of semicircular cross section as illustrated, this ring fitting snugly against the inner side of the flange 15, and being securely clamped to the same in the following manner. Referring now to Figs. 8, 9 and 10, the two ends of the ring 16 overlap to some extent, the end 17 being compressed to fit snugly and slidably within the other end 18. Attached to the end 18 at right angles thereto, is a screw or stud 19 upon which is adjustably mounted a set screw 20. The end 17 has movement past this set screw and stud by reason of a slot 21 therethrough in which the stud 19 lies. In order to insert a ring of this type in such a bowl, the set screw is loosened and the ring is compressed circumferentially until of a sufficiently small size to permit of its introduction within the flange 15 of the bowl. The ring is then expanded until it fits the flange 15 snugly, when the set screw is adjusted to maintain it in that position, in which it is in secure engagement in the bowl.

In Fig. 7 the method of attachment of the supporting hooks 22 is shown, these hooks being provided with curved bowls 23 adapted to fit snugly within the ring 16, where they are held at suitable intervals around the same by means of screws 24 whose holding action may be augmented by the use of solder if desired, the appearance of the ring in this case not being important as no part of the ring can be seen by a person in the room when the bowl is hung from the ceiling. These hooks 22 are provided with curved portions or hooks proper 25, to which may be attached the supporting rods 26, and are provided, as are the hooks shown in Figs. 1 to 5, with inwardly directed and downwardly extending bulb sockets 27.

The two types of supporting rings here shown for bowls of this general type, are not only extremely inexpensive to manufacture but are neat in appearance and provide a very secure engagement of the bowl, and an engagement which cannot be secured by any other means now in use unless the means are attached to the bowls before the same are supplied to the workmen in the rooms where they are to be located. On the other hand, the present means can be securely attached to any bowl by any workman and need not be assembled before the bowls are delivered to the place where they will be used.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. The combination with a bowl having a circumferential flange along its upper edge, of a split ring formed to snugly engage against such flange, and a plurality of hooks attached to said ring, one of said hooks being provided with a threaded opening adapted to receive a light bulb and maintain the same at a slight angle to the plane of the top of said bowl.

2. The combination with a bowl having a circumferential flange along its upper edge, of a split ring formed to snugly engage against such flange, and a plurality of hooks attached to said ring and lying within the periphery of said bowl, one of said hooks being provided with an integral extension having a threaded opening therein formed to receive a light bulb and maintain the same at a slight angle to the horizontal.

3. The combination with a bowl having a circumferentially disposed, laterally projecting flange of convex exterior about its edge, of a split ring of convex interior adapted to snugly contact the outside of such flange, and having alined openings at its ends, and a member adjustably engaging in such openings to securely engage said ring against such flange.

4. The combination with a bowl having a circumferentially disposed, laterally projecting flange of convex exterior about its edge, of a split ring of convex interior adapted to snugly contact the outside of such flange, and having alined openings at its ends, a member adjustably engaging in such openings to securely engage said ring against such flange, and a plurality of hooks engaging said ring exteriorly, thus leaving a substantially free interior thereon.

5. The combination with a bowl having a circumferentially disposed, laterally projecting flange of convex exterior about its edge, of a split ring of convex interior adapted to snugly contact the outside of such flange, and having alined openings at its ends, a member adjustably engaging in such openings to securely engage said ring against such flange, and a plurality of hooks having fingers extending slightly over each edge of said ring and clamped thereto.

6. The combination with a bowl having a circumferentially disposed, laterally projecting flange of convex exterior about its

edge, of a split ring of convex interior adapted to snugly contact the outside of such flange, and having alined openings at its ends, a member adjustably engaging in such openings to securely engage said ring against such flange, said ring having a plurality of notches formed in one edge, and a plurality of hooks having spaced fingers, one of such fingers engaging in such notches and both of such fingers being clamped tightly against said ring, thereby leaving a substantially smooth interior surface for engagement with such flange.

7. The combination with a bowl having a circumferentially disposed, laterally projecting flange of convex exterior about its edge, of a split ring of convex interior adapted to snugly contact the outside of such flange, and having alined openings at its ends, a member adjustably engaging in such openings to securely engage said ring against such flange, said ring having a plurality of notches formed in one edge, and a plurality of hooks having spaced fingers, one of such fingers engaging in such notches and both of such fingers being clamped tightly against said ring, thereby leaving a substantially smooth interior surface for engagement with such flange, each of said hooks having a threaded opening therein adapted to removably receive a light bulb.

Signed by me, this 3d day of June, 1915.

FREDERICK W. WAKEFIELD.

Attested by—

GERALD L. BASIL,

GEO. A. KLAAR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."