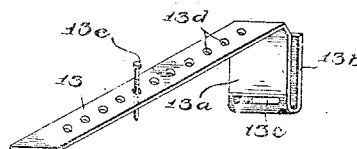
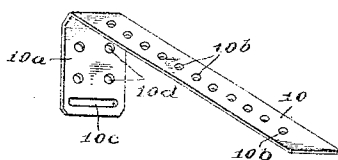
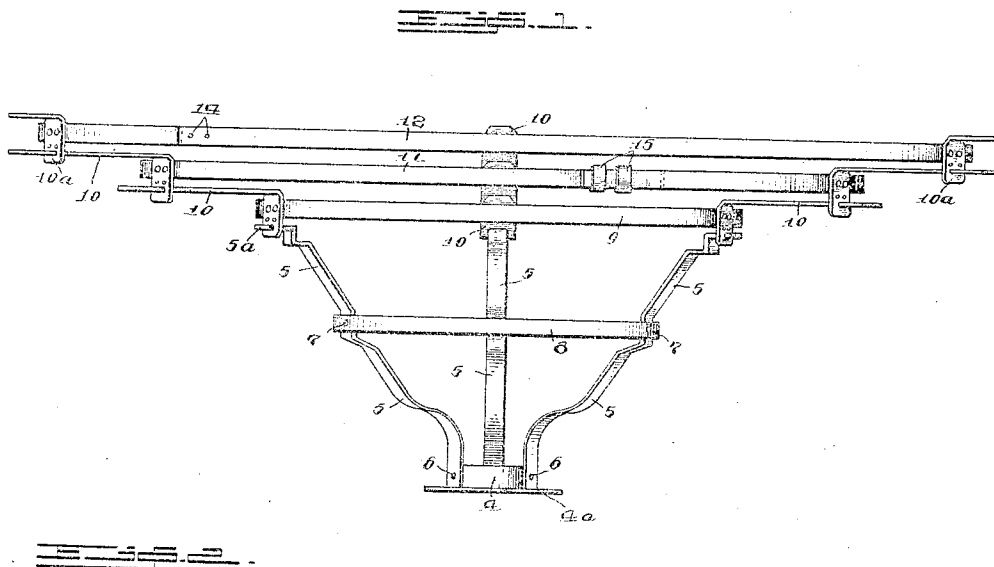


P. M. HOTCHKIN.
REFLECTOR SUPPORTING BRACKET.
APPLICATION FILED MAY 22, 1912.

1,056,176.

Patented Mar. 18, 1913.



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UNITED STATES PATENT OFFICE.

PAUL M. HOTCHKIN, OF CHICAGO, ILLINOIS.

REFLECTOR-SUPPORTING BRACKET.

1,053,176.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PAUL M. HOTCHKIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Reflector-Supporting Brackets, of which the following is a specification.

My present invention relates to a reflector supporting bracket, and has special reference to the provision of such a bracket adapted for use in connection with reflectors used in indirect illumination. The fixtures in such system of lighting, consist usually of an opaque bowl in which the lamps and reflectors are concealed, and powerful reflectors employed for directing upwardly rays of light from the concealed lamps.

My invention relates to the provision of a suitable bracket or frame for supporting the reflector in the bowl, and has for its object a structure made in sectional form, and used to install either large or small reflectors in bowls of different diameters, it only being necessary to take the number of sections that may be required in the desired case, and assemble them, instead of making up special brackets for each particular size of reflector or surrounding bowl.

I attain the above objects by the structure illustrated in the accompanying drawing, in which:—

Figure 1 is an elevation of several sections of a reflector bracket in assembled relation; Fig. 2 is a detail of a radially extending arm or member of the bracket, and—Fig. 3 is a detail of a modified form of a radially extending arm which is adjustable on the cooperating bracket members.

The brackets are usually suspended from the rim of the bowl (not shown) upon the radially extending arms 10, which have the right angled portions 10^a riveted to the hoops 9, 11 or 12. The portions 10^a of the arms 10 extend below the hoops, and are provided with slots 10^c proportioned to receive similar radially extending arms carried by the adjacent hoops or frames. After a sufficient number of hoops 9, 11 or 12, of different diameters have been assembled to suit the particular case, a central frame is utilized which is formed with radially extending arms 5, which engage in the slots 10^c of the innermost ring 9. The inner ends

of the arms 5 are secured by rivets 6 to a small central collar 4 which has a flange 4^a on its lower edge adapted to be secured to any suitable electric light socket or burner. In this case, as no interior hoops are to be required, a strengthening hoop 8 is secured to the arms 5 intermediate their ends and the ends of the arm 5 are turned to enter the slots 10^c of the radial arms of the innermost hoop of the adjacent frame. The central or intermediate detachable hoop 1 has its ends slidably connected by straps 15 so that the hoop may be adjusted to different diameters, while the ends of the upper hoop 12 are represented as being fixedly secured by the rivets 14.

When a hoop is adjustable with straps, such as 15, the modified form of radially extending arm shown in Fig. 3 is employed, so that the arms can be made to extend radially at equi-distant points on the hoop after it has been adjusted to the desired diameter. The modified form of arm consists of a strip of metal 13 similar to the strip employed in the riveted form, and has a downwardly extending portion, 13^a, which extends below the hoop with which it is designed to engage, but instead of being then terminated, it is bent upon itself to provide an upwardly extending end portion 13^b, so as to embrace the hoop between the portions 13^a, 13^b, with sufficient friction to maintain the arm in its adjusted position. This secures the radially extending arms to the hoop without additional means of attachment.

In the modified form shown in Fig. 3, a slot 13^c similar to the slot 10^c is provided through both the portions 13^a and 13^b to receive the laterally extending arm of the next inner ring. Holes 10^b or 13^d are provided in the radially extending arms so that when the frames have been properly assembled pins 13^e will be inserted to prevent the frames shifting their relative positions in the bowl or receptacle in which they are designed to be placed.

It will be seen that my improved reflector supporting device is composed in its entirety of a plurality of complementary frames of different diameters and adapted to interfit or nest so that should a user desire to adapt a small reflector to a large bowl he could do so by assembling the several members as shown in Fig. 1. By using one adjustable member 11, with the arms 13, three or four frames

will be sufficient to adapt the device to a wide range of reflectors and bowls.

It will be understood that in all cases it may not be necessary to use the entire set of
 5 frame members shown as the terminals 5^a of the lowermost member may be made long enough to engage the slots 10^c in the arms 10 of the hoop 12. It is also obvious that the rim of the reflector may rest upon a
 10 hoop alone without requiring the lower frame 5. It is this adaptability to different combinations that constitutes an important feature of my invention.

Having thus described my invention, what
 15 I claim, is:—

1. In a supporting device of the character described, a hoop having spaced arms arranged thereon, said arms having slots therein, and a frame having upwardly and
 20 outwardly projecting radiating members the free ends of which are adapted to engage the slots in said arms.

2. In a supporting device of the character described, a plurality of interfitting hoops,
 25 each having spaced radial arms arranged thereon, said arms having slots therein, and the arms of an inner hoop adapted to engage the slots in the arms of an outer hoop.

3. In a supporting device of the character
 30 described, a hoop, radial arms adjustably arranged on said hoop and having slots

therein, a frame having upwardly and outwardly extending members the ends of which are adapted to engage the slots in said radial arms.

4. In a supporting device of the character described, a series of interfitting hoops, slotted radial arms arranged on said hoops, the arms of one hoop adapted to engage the slots in the arms of another hoop in the series, and a frame pendant from said hoops and detachably connected with one of the
 40 hoops.

5. In a supporting device of the character described, a hoop, angular arms radially arranged on said hoop, the vertical portion of said arms having a slot therein, a frame pendant from and of less diameter than said hoop said frame having members detachably
 50 engaging the slots in said radial arms.

6. In a supporting device of the character described, an adjustable hoop, angular arms adjustably arranged on said hoop and having slots therein, a frame pendant from said hoop, said frame having radial arms detachably engaging the slots in said arms.
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In testimony whereof I affix my signature in the presence of two witnesses.

PAUL M. HOTCHKIN.

Witnesses:

ESTELLA WOLFF,
 G. P. LE BROCK.