H. C. ADAM.

LIGHTING FIXTURE.

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1,166,878.

Patented Jan. 4, 1916.

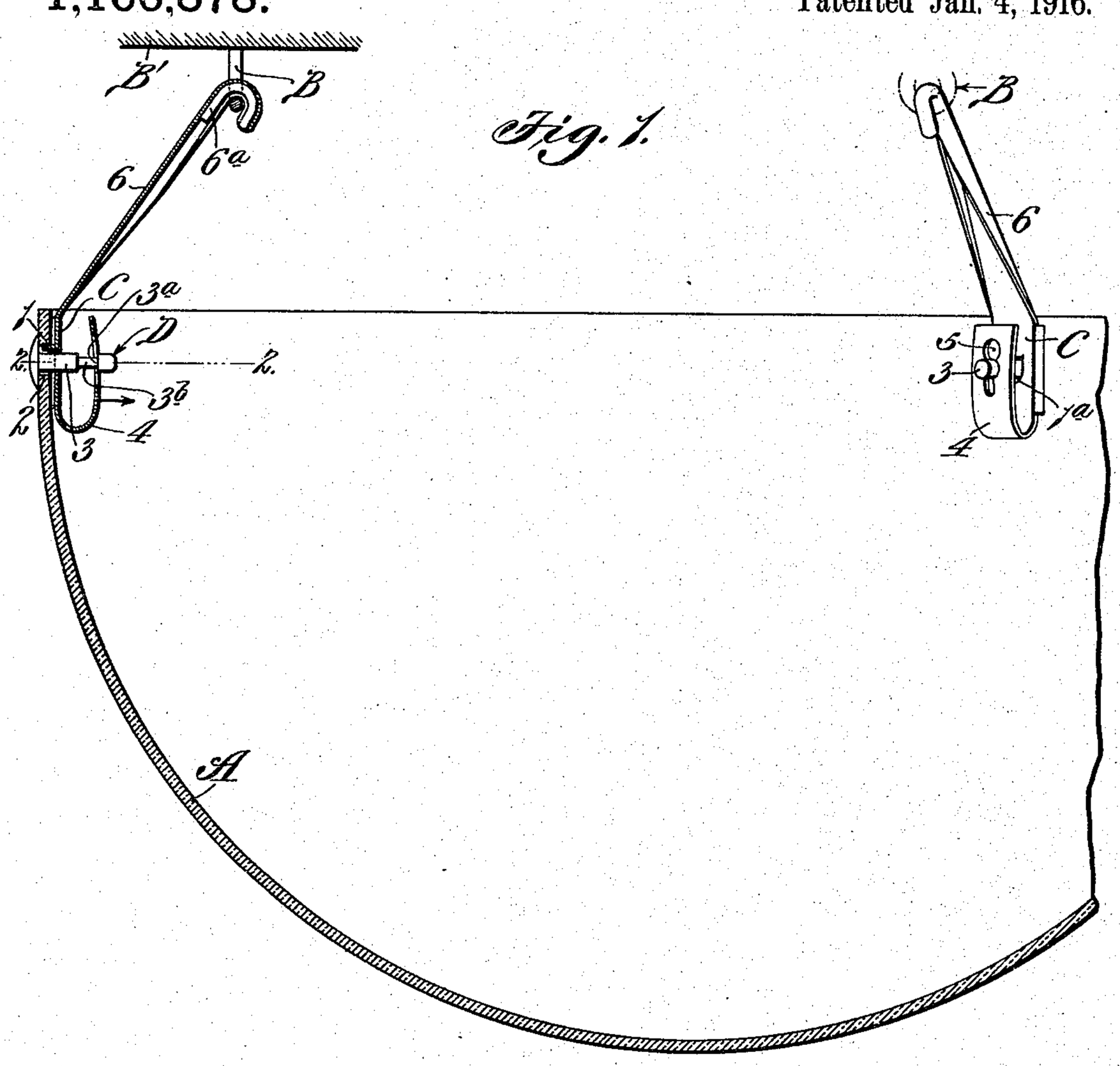


Fig. 1.

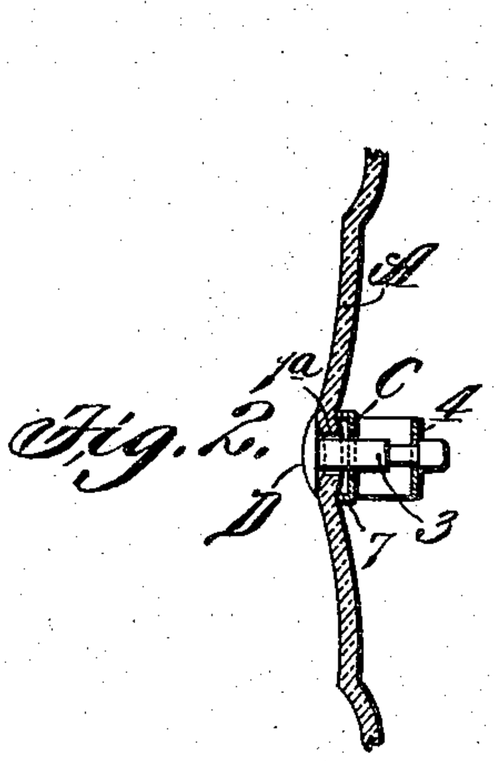


Fig. 2.

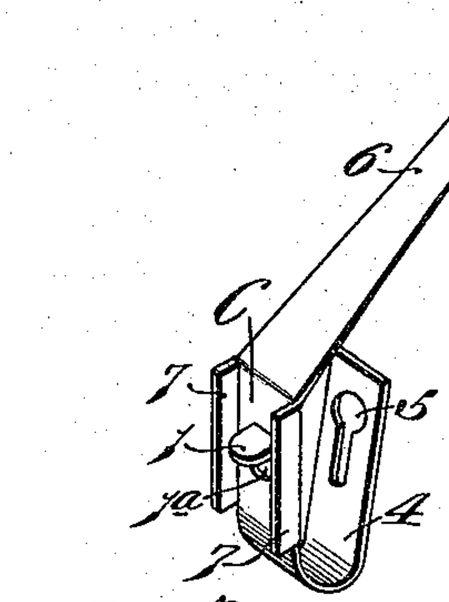
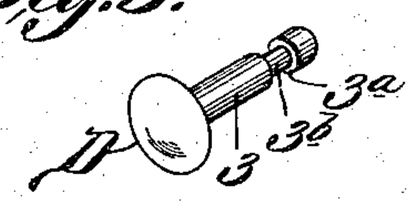


Fig. 3.



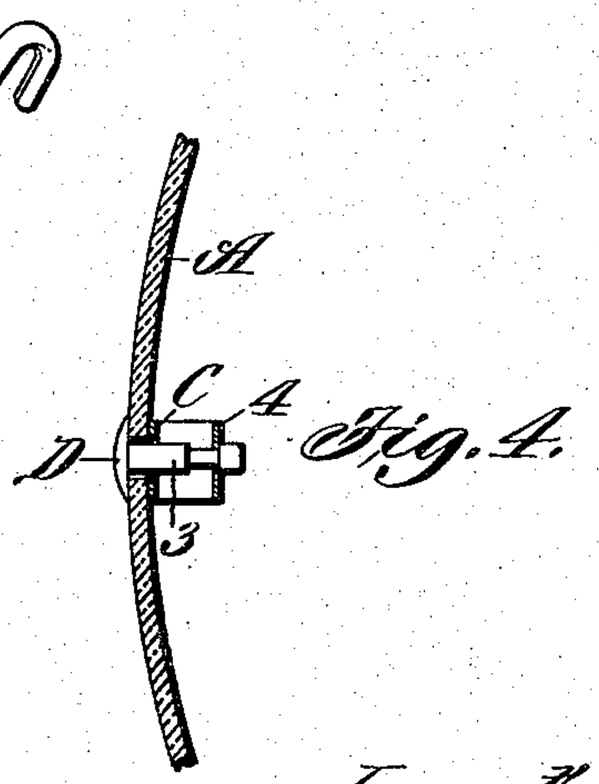


Fig. 4.

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UNITED STATES PATENT OFFICE.

HARRY C. ADAM, OF ST. LOUIS, MISSOURI.

LIGHTING-FIXTURE.

1,166,878. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed July 23, 1915. Serial No. 41,520.

To all whom it may concern:

Be it known that I, HARRY C. ADAM, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Lighting-Fixtures, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates, primarily, to devices that are adapted to be connected to a member formed of glass or other frangible material, so as to support said member or act as a connection between said member and a part with which said member coöperates.

The main object of my invention is to provide a device of the character described that can be applied quickly to a glass member or other frangible member without liability of cracking or breaking said member.

Another object is to provide a device of the character described which is so constructed that it will be held securely in engagement with the member to which it is applied by spring pressure. And still another object is to provide an efficient device for connecting the shade or other frangible element of a lighting fixture to the part that carries same, said device comprising a supporting portion that sustains the weight of the element to which the device is applied and a resilient clamping means that prevents said element from being disengaged from the supporting portion of the device.

Other objects and desirable features of my invention will be hereinafter pointed out.

Figure 1 of the drawings is a cross-sectional view, partly in elevation, illustrating my invention used in connection with the the diffusing shield of a lighting fixture. Fig. 2 is a horizontal sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of one of my improved devices, and Fig. 4 is a horizontal sectional view illustrating a slight modification of my invention.

My improved device is adapted to be used for various purposes, but it is particularly adapted for use in a direct or semi-indirect lighting fixture for connecting the shield that is arranged under the source of light to the means that sustains said shield. Therefore, I have herein illustrated my improved device used in connection with a lighting fixture for sustaining a frangible, bowl-shaped shield that is arranged under the lighting unit.

Referring to the drawings, which illustrate the preferred form of my invention, A designates the diffusing bowl of a semi-indirect lighting fixture and B designates a supporting means which may either consist of chains, screw eyes or other suitable devices that are connected to a ceiling B′ or to a top reflector that is arranged above the bowl A. The bowl A is connected to the supporting means B by a plurality of devices, each of which comprises a member C arranged inside of the bowl and a clamping member D having a portion that engages the outer side of the bowl. The member C is provided with a laterally-projecting supporting portion 1 that projects outwardly through an opening 2 in the bowl and sustains the weight of the bowl. The clamping member D is provided with a shank 3 that projects inwardly through the opening 2 in the bowl and through an opening 1^a in the member C, said shank 3 being provided at its outer end with a head that bears against the outer side of the bowl, as shown in Fig. 1. Said members C and D are held securely in engagement with the inner and outer surfaces, respectively, of the bowl by a resilient means that acts on the shank 3 of the clamping device D and exerts pressure on said shank in such a direction that the head at the outer end of same will be drawn inwardly toward the member C, thereby securely clamping the bowl in position between the members C and D and preventing the bowl from moving out of engagement with the portion 1 of the member C that sustains the weight of the bowl. In the preferred form of my invention as herein shown said resilient means consists of a spring arm 4 on the lower end of the member C which extends approximately parallel to the member C and engages a shoulder 3^a on the shank 3 of the member D.

It is immaterial, so far as my broad idea is concerned, how the spring arm 4 is combined with the shank 3, but I prefer to provide said arm 4 with a key-hole-shaped slot or opening 5 and provide the shank 3 with a reduced portion 3^b, as shown in Fig. 3, so that said shank can be inserted through the opening 5 in the arm 4, and then moved downwardly sufficiently to cause the reduced

portion 3^b of the shank to lie in the narrow portion of the opening 5 in the arm 4, thereby causing the arm 4 to bear against the shoulder 3^a on the shank 3 and exert pressure on same in the direction indicated by the arrow in Fig. 1. To attach the device to the bowl A it is only necessary to arrange the member C on the inside bowl, then insert the shank of the member D through the openings in the bowl, in the member C and in the arm 4, and thereafter press the arm 4 toward the member C and simultaneously depress the inner end of the shank 3, so that the reduced portion 3^b of said shank will enter the contracted portion of the opening in said arm 4. If it is desired to disconnect the device from the bowl it is only necessary to flex the spring arm 4 sufficiently to take the pressure off the shank of the clamping device D, thus permitting the device D to be tilted into such a position that the shank of same can be withdrawn through the openings in the arm 4, in the member C and in the bowl.

A device of the construction above described can be applied to or removed quickly from the member A, in view of the fact that it is not secured to said member by a screw-threaded fastening device. There is no liability of the member A being cracked or broken, as often occurs when a two-piece clamping member is being applied to the glass bowl of a lighting fixture; and still another desirable feature of such a device is that the weight of the bowl is sustained by a portion 1 on one of the members between which the bowl is clamped, instead of by the shank of the device that passes through said members and holds them in engagement with the bowl.

In the preferred form of my invention as herein shown the inside member C is provided with an integral hook 6 that serves to connect said member to the supporting means B, but this, of course, is a detail that can be varied without departing from the spirit of my invention. The member C can either be formed flat so that it will bear directly against the inner side of the bowl, as shown in Fig. 4, or said member can be provided with flanges 7, as shown in Fig. 3, that embrace a vertically-disposed rib or corrugation on the bowl, as shown in Fig. 2, and thus prevent the member C from turning with relation to the bowl into an inclined or horizontal position. The member C of the device is preferably stamped out of sheet metal and all the various elements of same are integrally connected together, the shank of the hook 6 being curved slightly in cross section and the upper end of same being wrapped around a strengthening device 6^a which preferably consists of a piece of wire bent into hook form, as shown in Fig. 1. The supporting portion 1 and the opening 1^a in the member C are preferably formed by slitting said member C and bending the slitted portion laterally, as in Fig. 3, thus simplifying the construction of the device and reducing the cost of the manufacture of same. The spring arm 4 is integrally connected to the lower end of the member C in the manner shown in Fig. 1, so that the element as an entirety that is arranged on the inside of the bowl consists of a substantially U-shaped part, one leg of which exerts yielding pressure on the shank of a clamping member that bears against the outer side of the bowl, and thus prevents the bowl from moving out of engagement with the supporting portion 1 of the member that is arranged on the inside of the bowl.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is:

1. A device for the purpose described, comprising a member that is adapted to be arranged on one side of the object with which the device coöperates, said member having a supporting portion that projects into an opening in said object, and a clamping member arranged on the opposite side of said object and provided with a shank that projects through the opening in said object.

2. A device for the purpose described, comprising a member that is adapted to be arranged on one side of the object with which the device coöperates, said member having a supporting portion that projects into an opening in said object, a clamping member arranged on the opposite side of said object and provided with a shank that projects through the opening in said object, and resilient means that coöperates with said shank to hold said members in engagement with said object.

3. A device for the purpose described, comprising two members that are adapted to be arranged on opposite sides of the object with which the device coöperates, one of said members having a resilient arm that is provided with a substantially key-hole-shaped opening and the other member having a shank that passes through the object and which is provided intermediate its ends with a reduced portion that normally lies in a contracted part of said key-hole-shaped opening and thus serves to connect said shank and resilient arm together.

4. A device for the purpose described, comprising two members that are adapted to be arranged on opposite sides of the object with which the device coöperates, one of said members having a resilient arm that is provided with a substantially key-hole-shaped opening and the other member having a shank that passes through the object and which is provided with a reduced por-

tion that normally lies in a contracted part of said key-hole-shaped opening, and a supporting portion on the member that has the arm which sustains the weight of the object.

5. A device for the purpose described, comprising a member that is adapted to be arranged on the inner side of the object with which the device coöperates, said member being provided with a laterally-projecting supporting portion that enters an opening in said object, an integral device at the upper end of said member for connecting it to a sustaining means, a spring arm attached to the lower end of said member and extending approximately parallel to same, and a clamping member arranged on the outer side of the object and provided with a shank that projects inwardly through the object and which is provided with a shoulder that is engaged by the spring arm on the inner member.

6. In a lighting fixture, a shield arranged under a source of light, a sustaining means for said shield composed of a plurality of devices, each of which consists of an inner and an outer member arranged on opposite sides of the shield, a shank on said outer member that projects inwardly through an opening in the shield, and a spring arm on said inner member that exerts pressure on said shank in a direction tending to hold both members clamped tightly against the shield.

7. In a lighting fixture, a shield arranged under a source of light, a sustaining means for said shield composed of a plurality of devices, each of which consists of an inner and an outer member arranged on opposite sides of the shield, a shank on said outer member that projects inwardly through an opening in the shield, a spring arm on said inner member that exerts pressure on said shank in a direction tending to hold both members clamped tightly against the shield, said inner member being provided with a supporting portion that enters an opening in the shield, and an integral device on said inner member for connecting it to a sustaining means.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this twenty-first day of July, 1915.

HARRY C. ADAM.

Witnesses:
WELLS L. CHURCH,
GEORGE BAKEWELL.