March 17, 1925. 1,529,822

H. C. ADAM

ELECTRIC LIGHTING FIXTURE

Filed March 8, 1922

Fig. 1

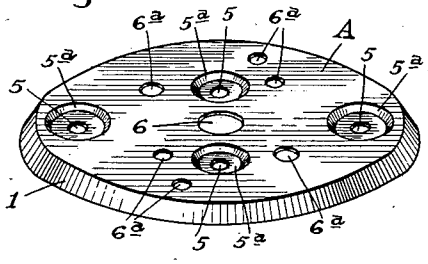


Fig. 2

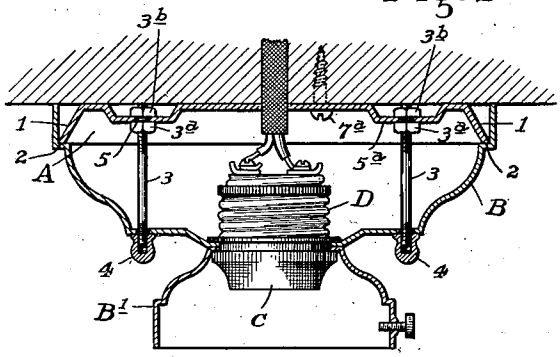


Fig. 3

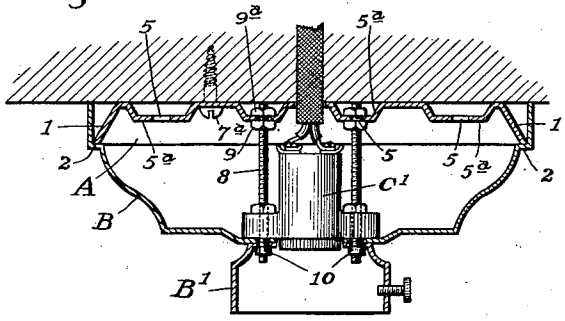


Fig. 4

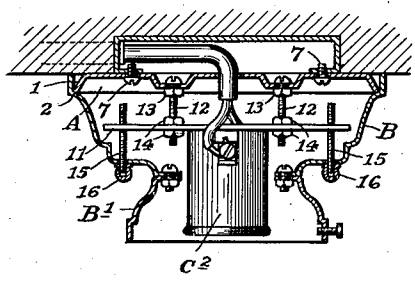
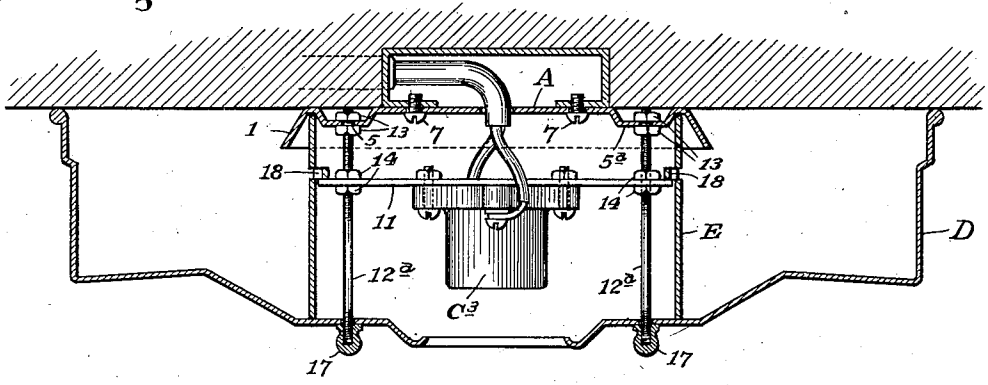


Fig. 5



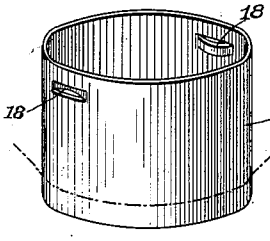


Fig. 6

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UNITED STATES PATENT OFFICE.

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

ELECTRIC-LIGHTING FIXTURE.

Application filed March 8, 1922. Serial No. 541,989.

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 Electric-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 to electric lighting fixtures, and particularly to the means used in such fixtures for supporting the electric receptacle that carries the lighting unit and for supporting the housing that conceals the electric receptacle or the canopy that conceals the service wires and ceiling connection.

One object of my invention is to provide an electric lighting fixture of novel construction that is easy to install and inexpensive to manufacture.

Another object is to provide a sustaining element for the electric receptacle, canopy and other parts of an electric lighting fixture that can be used with fixtures of various kinds and sizes.

Figure 1 of the drawings is a perspective view of my improved sustaining element.

Figures 2, 3, and 4 are vertical sectional views, illustrating various forms of ceiling lighting fixtures equipped with my improved sustaining element.

Figure 5 is a vertical sectional view of an electric lighting fixture constructed in accordance with my invention; and

Figure 6 is a perspective view of the spacing sleeve that forms part of the fixture shown in Figure 5.

While I have herein illustrated my invention embodied in various forms of lighting fixtures wherein the sustaining element is connected directly to the ceiling or to an outlet box in the ceiling, I wish it to be understood that it is immaterial whether said sustaining element is mounted directly on the ceiling or is suspended some distance below the ceiling by a chain or the like. Also that it is immaterial whether said sustaining element is used to carry the electric receptacle and the housing for same, or is used merely to sustain a canopy that conceals the service wires and ceiling connection.

Referring to the drawings which illustrate various forms of ceiling fixtures equipped with my improved sustaining element, A designates the sustaining element which preferably consists of a substantially disk-shaped sheet metal stamping that is adapted to be placed against the face of the ceiling or over an outlet box imbedded in the ceiling and retained in position by fastening devices that pass upwardly through holes in said sustaining element. If the fixture is of the type that comprises a canopy or shell B whose main function is to conceal the electric wires and the electric receptacle, as illustrated in Figures 2, 3 and 4, the sustaining element A is so proportioned that it will co-operate with said canopy to form a housing in which the "live" metal parts are encased, the sustaining element A constituting the top wall of said housing. Preferably, the sustaining element A is provided at its peripheral edge with an integral, downwardly-projecting flange 1 whose lower edge co-operates with an annular ledge or shoulder 2 on the canopy B to position the canopy and maintain it in parallel relationship which the ceiling and prevent the upper edge of said canopy from being forced into or imbedded in the ceiling during the operation of assembling the parts of the fixture.

In the fixture shown in Figure 2 the electric receptacle C passes upwardly through aligned openings in the canopy B and in a depending collar B′ on the underside of said canopy and is securely clamped to said parts by means of a clamping ring D mounted on an externally-screw-threaded portion of the receptacle C and provided at its lower end with a flange that co-operates with a flange on the receptacle C to embrace two annular-shaped portions of the canopy B and sleeve B′ that are interposed between said flanges, as illustrated in Figure 2. The canopy B is retained in position and securely connected to the sustaining element A by means of a plurality of screws 3 or the like connected at their upper ends to the element A and having their lower end portions projecting downwardly through the canopy B and equipped with cap nuts 4 that are adapted to be tightened so as to move the canopy B upwardly towards the sustaining element A, and thus bring the annular ledge 2 on said canopy into engagement with the spacing means or flange 1 that projects downwardly from

said sustaining element. It is immaterial how the screws 3 are connected to the sustaining element A, but I prefer to provide each of said screws with a nut 3^a that bears against the underside of the sustaining element A and a nut 3^b that bears against the upper side of said sustaining element and which is arranged in a pocket or recess 5^a formed in the top face of said sustaining element and surrounding a hole 5 through which the screw passes, thereby causing the canopy retaining devices to be rigidly connected at their upper ends to the sustaining element A of the fixture. Due to the fact that the sustaining element A consists of a sheet metal stamping it is light in weight and affords adequate protection for the "live" metal parts of the fixture, such as the terminals on the electric receptacle and the uncovered portions of the wires connected to said terminals, because said sustaining element A forms the top wall of a metal housing which completely encases the "live" metal parts. Another desirable feature of a ceiling fixture equipped with a sustaining element A of the kind above described is that the canopy will be maintained in parallel relationship with the ceiling, due, of course, to the fact that the sustaining element A is provided with a depending portion 1 that is engaged by the annular ledge 2 on the canopy B when the cap nuts 4 on the sustaining screws 3 are tightened.

The sustaining element A is provided with a center hole 6 and numerous sets of holes 6^a arranged so as to permit the element A to be suspended from a chain or the like or connected directly to a ceiling by means of wood screws 7^a or to a ceiling outlet box by means of machine screws 7. Said sustaining element A is also provided in its top face, adjacent its center, with recesses or depressions 5^a so as to enable an electric receptacle C′ to be suspended from the central portion of said sustaining element by screws 8 whose upper end portions are threaded through nuts 9 that bear against the underside of the element A and through nuts 9^a seated in the recesses or pockets 5^a in the top face of said sustaining element, as shown in Figure 3. The screws 8 are also preferably used to secure the canopy B to the sustaining element A and to connect the collar B′ to said canopy, said screws passing downwardly through superimposed portions of the canopy B and collar B′ and being equipped with nuts 10 that are adapted to be tightened so as to clamp the collar against the canopy and move the canopy upwardly into engagement with the depending flange 1 on the sustaining element.

In Figure 4 I have shown my improved sustaining element used in connection with a fixture in which the electric receptacle C^2 is carried by a horizontally-disposed bar 11 which is suspended from the sustaining element A by means of screws 12 provided at their upper ends with heads and with nuts 13 that bear against the top and bottom faces of the sustaining element and provided adjacent their lower ends with pairs of nuts 14 that embrace the bar 11, the canopy B being sustained and held clamped tightly against the sustaining element A by means of screws 15 threaded into the bar 11 and provided at their lower ends with cap nuts 16 that engage the canopy B, as shown in Figure 4.

I make no claim herein to the particular details of construction and to the combination of the various parts of the fixtures shown in Figures 2, 3 and 4, as the same form the subject-matter of my pending application for Patent Serial No. 610,840, filed January 5, 1923, the purpose of illustrating said fixtures in this application being to show that my improved sustaining element is capable of use with various kinds and styles of electric ceiling fixtures.

In Figure 5 of the drawings I have illustrated an electric lighting fixture of novel construction that I have devised, which differs from the fixtures shown in the other views, in that the canopy D is of considerably greater diameter than the sustaining element A of the fixture. In such a fixture a sleeve E, formed preferably of thin sheet metal, is arranged between the sustaining element A and the canopy D, so as to form a spacing device, and also the side wall portion of a metal housing in which the "live" metal parts of the fixture are encased, said sleeve being positioned by the flange 1 on the sustaining element A which surrounds the upper end of the sleeve. The electric receptacle C^3 of the fixture is carried by a horizontally-disposed bar 11, which bar is sustained by screws 12^a of sufficient length to project downwardly through the canopy, and which are provided at their lower ends with cap nuts 17 that hold the canopy clamped tightly against the spacing sleeve E, the sustaining element A being adapted to be connected directly to the ceiling or to an outlet box in the ceiling or suspended some distance below the ceiling. In order to assist the operator in assembling the parts of the fixture, the sleeve E is so constructed that when it is slipped upwardly over the ends of the horizontally-disposed bar 11, said bar will temporarily sustain the sleeve E in operative position while the canopy D is being positioned on the screws 12^a that project downwardly from the sustaining element A. In the form of my invention herein shown the sleeve E is provided adjacent its upper end with shoulders formed by inwardly-pressed portions 18 of said sleeve that are adapted to be engaged with the end portions of the bar 11 by turning said sleeve slightly after it has been slipped upwardly over the ends of

said bar, but it is of course obvious that the same result could be accomplished in various other ways without departing from the spirit of my invention. As the sleeve E is formed of thin sheet metal, the length of said sleeve can be shortened easily by clipping off the lower end of same, as indicated by dot and dash lines in Figure 6, in case the sustaining element is connected to an outlet box that projects downwardly slightly below the face of the ceiling. To install a fixture of the kind illustrated in Figure 5 the screws 12^a are first secured to the sustaining element A, the bar 11 with the electric receptacle C^3 thereon is then arranged in operative position on said screws, and thereafter, the element A is secured to the ceiling or to the outlet box in the ceiling by means of the fastening devices 7. The sleeve E is then moved upwardly until the upper end of same strikes against the positioning flange 1 on the sustaining element A, and thereafter said sleeve is rotated until the inwardly-projecting portions 18 on said sleeve engage the end portions of the bar 11, thus causing the sleeve E to be sustained or supported by the bar 11. The canopy D is then moved upwardly over the ends of the screws 12^a and is secured in position by means of the cap nuts 17 on said screws.

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

1. A sustaining means for electric lighting fixtures, consisting of a substantially flat, disk-shaped sheet metal stamping provided at its outer edge with a downwardly-bent positioning flange arranged so that it will be concealed from view, sets of holes in said stamping for receiving fastening devices that are used to secure said stamping to a supporting structure, and a separate set of holes in said stamping communicating with pressed pockets or depressions in the top side of said stamping, said pockets being adapted to receive elements that are used to join said stamping to devices which retain parts of the fixture.

2. An electric lighting fixture, comprising a sustaining element, a canopy, a spacing sleeve interposed betwen said canopy and sustaining element and completely concealed by said canopy, and devices projecting downwardly from said sustaining element through said sleeve for retaining said canopy in operative position.

3. An electric lighting fixture, comprising a sustaining element, a canopy, a spacing sleeve interposed between said canopy and sustaining element and completely concealed by said canopy, retaining devices for said canopy projecting downwardly from said sustaining element through said sleeve, an electric receptacle arranged inside of said spacing sleeve, and a supporting means for said receptacle suspended from said sustaining element and adapted to be engaged by said sleeve to temporarily sustain said sleeve in the operation of assembling the parts of the fixture.

4. An electric lighting fixture, comprising a sustaining element consisting of a disk-shaped, sheet metal stamping provided at its peripheral edge with a positioning flange, a canopy, a spacing sleeve interposed between said canopy and said sustaining element and completely concealed by said canopy and screw-threaded devices projecting downwardly from said sustaining element through said canopy for maintaining said canopy in position.

5. An electric lighting fixture, comprising a sustaining element consisting of a disk-shaped, sheet metal stamping provided at its peripheral edge with a positioning flange, a canopy, a spacing sleeve interposed between said canopy and said sustaining element and completely concealed by said canopy, screws projecting downwardly from said sustaining element through said sleeve for maintaining said canopy in position, a horizontally-disposed bar having openings through which said screws pass, an electric receptacle carried by said bar, and nuts on said screws arranged above and below said bar for retaining said bar in position.

6. An electric lighting fixture, comprising a sustaining element consisting of a substantially disk-shaped, sheet metal stamping provided at its peripheral edge with a depending flange and having depressions or recesses formed in the top side of same, screws or the like depending from said sustaining devices and provided with nuts that are arranged in the recesses in the top face of said sustaining element, a canopy provided with holes through which the lower ends of said screws pass, cap nuts on the lower end portions of said screws, a horizontally-disposed bar mounted on said screws below said sustaining element and provided with an electric receptacle, and a metal sleeve interposed between said canopy and sustaining element and provided with portions that are adapted to be moved into engagement with said bar so as to sustain said sleeve during the operation of assembling the parts of the fixture.

HARRY C. ADAM.