Oct. 2, 1928. 1,686,362

G. ARRAS

ELECTRIC FIXTURE

Filed June 29, 1925

Fig. 1.

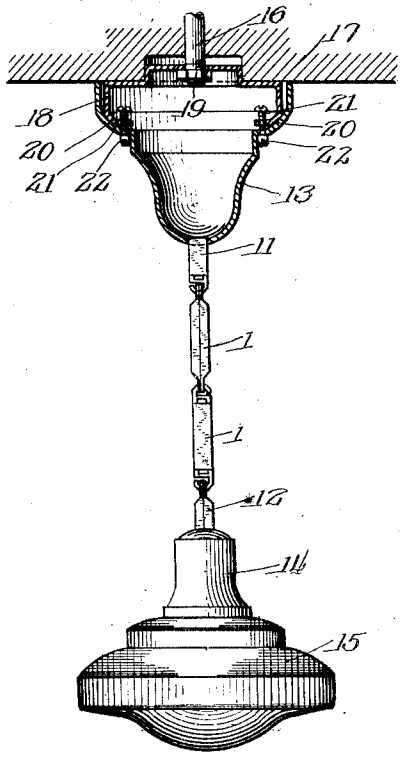


Fig. 3.

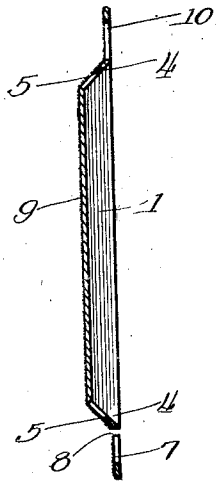


Fig. 2.

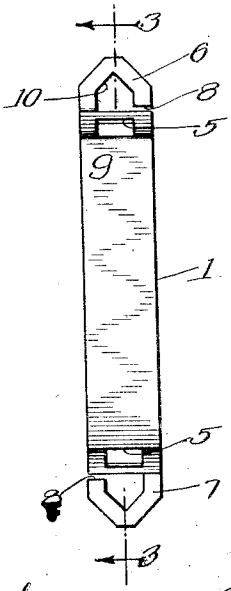


Fig. 5.

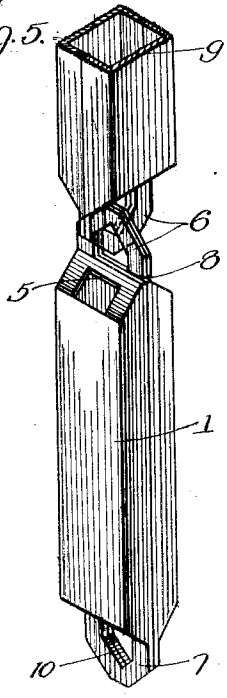


Fig. 6.

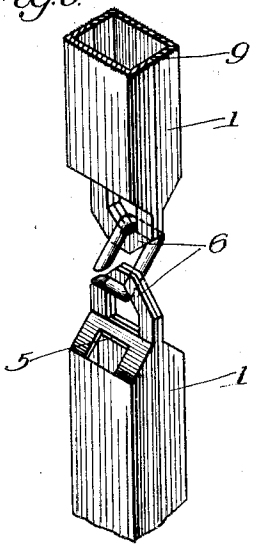
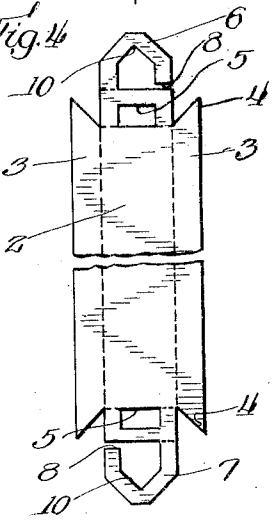


Fig. 4



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UNITED STATES PATENT OFFICE.

GEORGE ARRAS, OF CHICAGO, ILLINOIS.

ELECTRIC FIXTURE.

Application filed June 29, 1925. Serial No. 40,225.

This invention relates to an electric fixture and more particularly to the suspension means therefor. One of the principal objects of the invention is to provide a suspension chain made of hollow metal units, which can be varied in length by simply attaching or disconnecting any desired number of the units. A further object of the invention is to provide improved means for supporting the fixture. A further means is to provide a hollow protecting and concealing chain for electrical conductors which is easily assembled and taken apart. Other objects will appear hereinafter.

In the accompanying drawing, Fig. 1 is a view partly in section of a fixture constructed in accordance with this invention; Fig. 2 is a side elevation of one of the parts which makes up a hollow chain unit; Fig. 3 is a section taken on the line 3—3 of Fig. 2; Fig. 4 is a plan view of a blank from which the hollow chain sections are made; Fig. 5 is a perspective showing an enlarged view of one of the link connections; and Fig. 6 illustrates a modification in which a separate split link is used for a connector.

It is common practice to use a metal chain for supporting or suspending electric fixtures and to weave the electrical conductor wires in and out of the chain links to approximate the construction of the chain itself and thus to partially hide or conceal the conductors. This is not only unsightly in appearance, as it easily collects dust and dirt, but also it is difficult to alter the length of the chains in varying the length of the fixture support.

The present invention is designed and intended to overcome these objections and to provide a structure which may be stamped and formed up out of sheet material in similar channel halves or sections which when placed together will form a complete hollow unit or link which may easily be connected with similar links, by hooking them together, to make a support of any desired length.

In making these sections of sheet metal they may be japanned, enamelled, painted, or coated with porcelain, or the like, after they have been formed up and before the pieces are assembled in units or hooked together, which is impossible with chains. The advantage of this is apparent when it is considered that it is highly desirable to produce a smooth or enamelled surface on an entire fixture of this kind, as for example, to make the entire fixture in white for decorative and sanitary reasons.

By having openings adjacent the end, these hollow chain ends will very largely conceal an electric conductor inserted through them as the only place where it will appear is in the short space between the openings adjacent hollow chain units, the greater portion of the conductors being contained within the hollow chain units.

In carrying out this invention, each hollow chain unit consists of two similar sections 1 formed up out of sheet material which is cut in the form of a blank, as shown in Fig. 4, with a body portion 2 having sides 3 with angular ends 4. At the ends of the body portion 2 are perforations 5, and beyond these perforations are hooks 6 and 7 with openings 8 which are on opposite sides of the blank, as seen in Fig. 4, but which, when two similar blanks are placed together, as shown in Fig. 5, will register with each other.

In forming up these hollow chain sections, the sides 3 are turned inwardly at right angles and the perforated ends of the body portion are bent at an angle to meet the angular ends 4 of the sides with the hooks 6 extending parallel with the body portion 2 but offset therefrom at the ends of the sides 3.

It is also obvious that the completed sections with hooks 6 and openings 5 at the ends may be stamped up, or drawn, out of sheet material, in which case it is unnecessary to cut the angular ends 4, as shown in Fig. 4, and a smoother or more rounded section may be the result, which will look the same as the other section.

When the separate sections are formed up, as shown in Figs. 2 and 3, a vitrified coating 9, or enamel, or paint, japan, or the like may be applied to the outer surface of the sections without clogging the openings 5 or those of the hooks 6, and such a coating will also cover the fold or junction lines of the section as it is made up.

The fixture chain is made up of units each consisting of a pair of channel sections 1 placed oppositely to form a hollow interior, the hooks at the opposite ends registering with each other, and the inside of the hooks being formed at the ends with a pointed or converging portion 10, which, when the hooks of adjacent units are connected, causes the interconnected sections to be drawn tightly together. When connected in this way the units

have a solid appearance, as the junction line of the sections is scarcely visible.

In using a hollow fixture supporting chain of this kind, the upper and lower units 11 and 12 are preferably only the extremities of a hollow chain unit, secured into a properly shaped opening in a canopy 13 and lamp housing 14 respectively. To the housing 14 a lamp shade or globe 15 is attached in any well known manner, and the canopy 13 may be attached to a fixture stud or pipe 16 in the ceiling 17 by means of a metal strap or bracket 18. The bracket is secured to the fixture pipe 16 by means of a nut 19, and extending through depending arms 20 at the ends of the strap 18 are threaded members 21 adapted to extend through the canopy 13 so that fastening nuts 22 can be applied thereto from the outside of the canopy to hold it in place against the ceiling.

No conductor wires are shown in connection with the fixture, but it is obvious that they can be easily threaded through the various hollow chain units until they extend through any desired length of this hollow suspension chain. The chain itself can be varied in length by simply varying the the number of hollow chain units which are connected together. Thus it is not necessary to have the fixture chains cut to a fixed length before they are sent out in quantity on an order, but the hollow chain can be varied in length as desired at the place where it is to be used. It is obvious that instead of being rectangular or square, as shown, the hollow chain units may be round or various angular forms without departing from the spirit of the invention.

I claim:

1. A fixture chain comprising opposite channel members forming hollow sheet metal sections with angular loops at the ends which hook into corresponding loops of adjacent sections, the interengagement of the angular loops holding the opposite sections together.

2. A hollow sheet metal fixture chain comprising links each formed of two opposite channel sections with angular engaging end hooks, the hooks of connected links interengaging and each pair of sections being held together by the hooks of the connected link.

3. A fixture chain composed of hollow connected units, each unit comprising a pair of similar channel sections having separate projecting hooks at the ends with converging inner surfaces to draw the sections of connected units together.

4. A fixture chain composed of channel members forming hollow units of similar sections having projecting angular end connecting hooks and openings at the ends of the hollow sections through which a conductor may be strung, the angular hooks of connected units interengaging drawing the sections together.

5. A hollow sheet metal fixture chain comprising units each made of two similar sheet metal blanks, each section formed with a dished portion having openings at the ends and a flat angular hook projecting beyond the dished portion, the hooks of connected units interengaging and drawing their sections together, and the end openings being adjacent for threading a fixture wire therethrough.

GEORGE ARRAS.