Nov. 3, 1959 H. J. HAMMERLY 2,911,179

CLAMP AND FIXTURE SUPPORT

Filed April 22, 1954

Fig. 1.

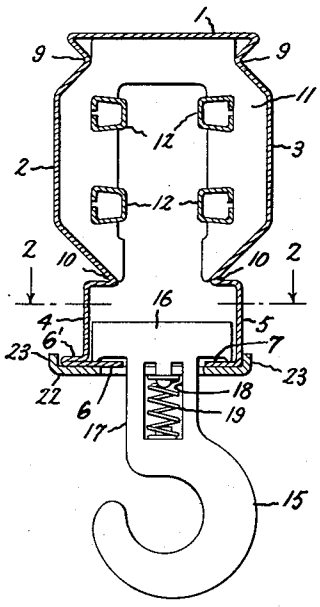


Fig. 2.

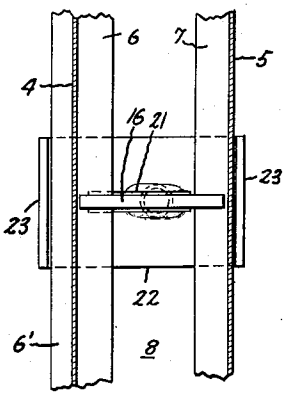


Fig. 3.

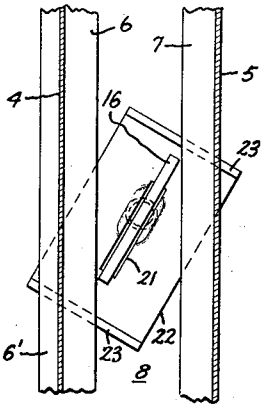
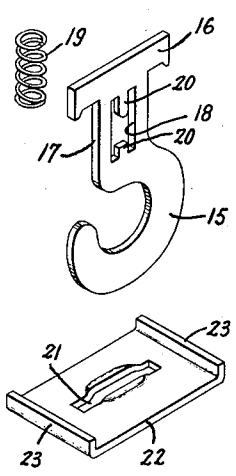


Fig. 4.



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CLAMP AND FIXTURE SUPPORT

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2 Claims. (Cl. 248—339)

The present invention relates to an improved hook and clamp assembly particularly suited for use in connection with enclosed electric busways.

Electric busways including a metal enclosure housing a plurality of conductors are in extensive use for distributing electricity in industrial buildings. In a widely used form of busway the housing is formed with a longitudinal slot located in the bottom wall thereof to permit power take off at any desired along the length of the busway. It is common practice to support collector plugs, trolleys, lamps and the like from the lower wall of the housing by means of a hook clamped thereto. In Veitch Patent 2,523,888, dated September 26, 1950, is described and claimed a hook support of this general type.

The present invention provides an improved clamp and support which is readily attached and detached from the busway without tools, which reinforces the busway, which is reliable in the support it provides and which may be manufactured at low cost.

Further objects and advantages of my invention will become apparent as the following description proceeds, reference being had to the accompanying drawing, and its scope will be pointed out in the appended claims. In the drawing Figure 1 is an elevational view in section showing a clamp and hook embodying my invention applied to a busway; Figure 2 is a sectional view taken along the line 2—2 of Figure 1; Figure 3 is the same view as Figure 2 showing the clamp and hook released from the busway and Figure 4 is an exploded view in perspective of the clamp and hook of my invention.

Referring now to the drawing, I have shown my invention as used in connection with a busway including an elongated sheet metal housing including a top wall 1, side walls 2 and 3, lower side wall extensions 4 and 5 and inwardly directed bottom wall flanges 6 and 7, which are spaced to provide an elongated passage 8. The side walls 2 and 3 are indented at 9 and 10 to engage U-shaped sheet insulating supports 11 which are positioned at intervals along the busway and recessed to receive and support trapezoidal conductors 12 which extend lengthwise of the duct.

As well understood by those skilled in the art, plug or trolley connectors extend into the housing through slot 8 and make connection with the conductors 12. It is often desirable to support lighting fixtures or tools energized from the busses from the housing. In accordance with my invention I provide an improved clamp and hook for such support. The hook 15 is preferably a flat sheet metal punching provided with a T-shaped section including a head 16 and an arm 17, the arm being provided with a window 18 to receive a compression spring 19. The window is shaped to provide suitable extension 20 for positioning the ends of the spring. The arm 17 of the hook is received in a slot 21 of the clamp member 22 which is provided at its outer edges with upturned flanges 23. These flanges in the assembled position engage the walls of the duct to prevent the duct from spreading and likewise prevent the clamp from rotating while the transverse head 16 engages the inner walls of flanges 6 and 7.

It is apparent that the elongated slot and flat cross section of the hook provide a non-rotatable connection between the hook and the clamp 22 so that the flanges 23 likewise retain the hook in position.

As seen from Figure 1 the lower flange 6 includes an outward extension 6' which cooperates with the electrical take-off devices (not shown) for purposes of polarization. It will be apparent that as a result of this extension the arm 16 of the hook is not centrally located with respect to the clamp member 22 and that the slot 21 must therefore be substantially longer than the width of the arm 17.

The manner in which the clamp and hook is attached and detached from the busway is believed to be readily understood from the foregoing detailed description but may be further described briefly as follows: With the hook assembled as shown in Figure 1 it is only necessary to move the clamp 22 downwardly until the flanges 23 clear the edges of the housing at which time the hook and clamp may be rotated to the position shown in Figure 3 and removed from the housing. In assemblying the hook on the busway it is merely necessary to grasp the hook, place the assembly in the position shown in Figure 3 and push upwardly on the hook until the T-shaped head clears the lower walls 6 and 7 at which time the hook may be rotated to bring both the hook and clamp into the position shown in Figure 2.

While the construction of the present invention is very simple and inexpensive to manufacture, it is easier to use and more reliable than any of the prior art devices.

While I have shown and described a particular embodiment of my invention, it will be apparent to those skilled in the art that changes and modifications may be made without departing from my invention in its broader aspects and my aim therefore in the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A hook and clamp assembly for detachable connection with a bus duct enclosure including inturned flanges at the lower end thereof defining an elongated passage, said assembly including a hook, a clamping member having upturned flanges for engaging the said enclosure at the outer ends of said enclosure flanges and provided with an elongated slot, said hook including an integral transverse head portion for engaging said inturned flanges within said enclosure and an arm portion non-rotatably received in said slot, said arm having an aperture formed therein, and a compression spring received within said aperture and engaging said clamping member to urge it toward said head portion.

2. A hook and clamp assembly for detachable connection with a bus duct enclosure including inturned flanges at the lower end thereof defining an elongated

passage, said assembly including a uniplanar hook member constructed of a single sheet of metal, a clamping member having upturned flanges for engaging said enclosure at the outer ends of said enclosure flanges and provided with an elongated slot slidably receiving said uniplanar hook member, said hook member including an integral transverse head portion for engaging said inturned flanges within said enclosure and an arm portion non-rotatably received in said slot, said arm portion having an aperture formed therein and a compression spring received within said aperture and engaging said clamping member to urge it toward said head portion.

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