

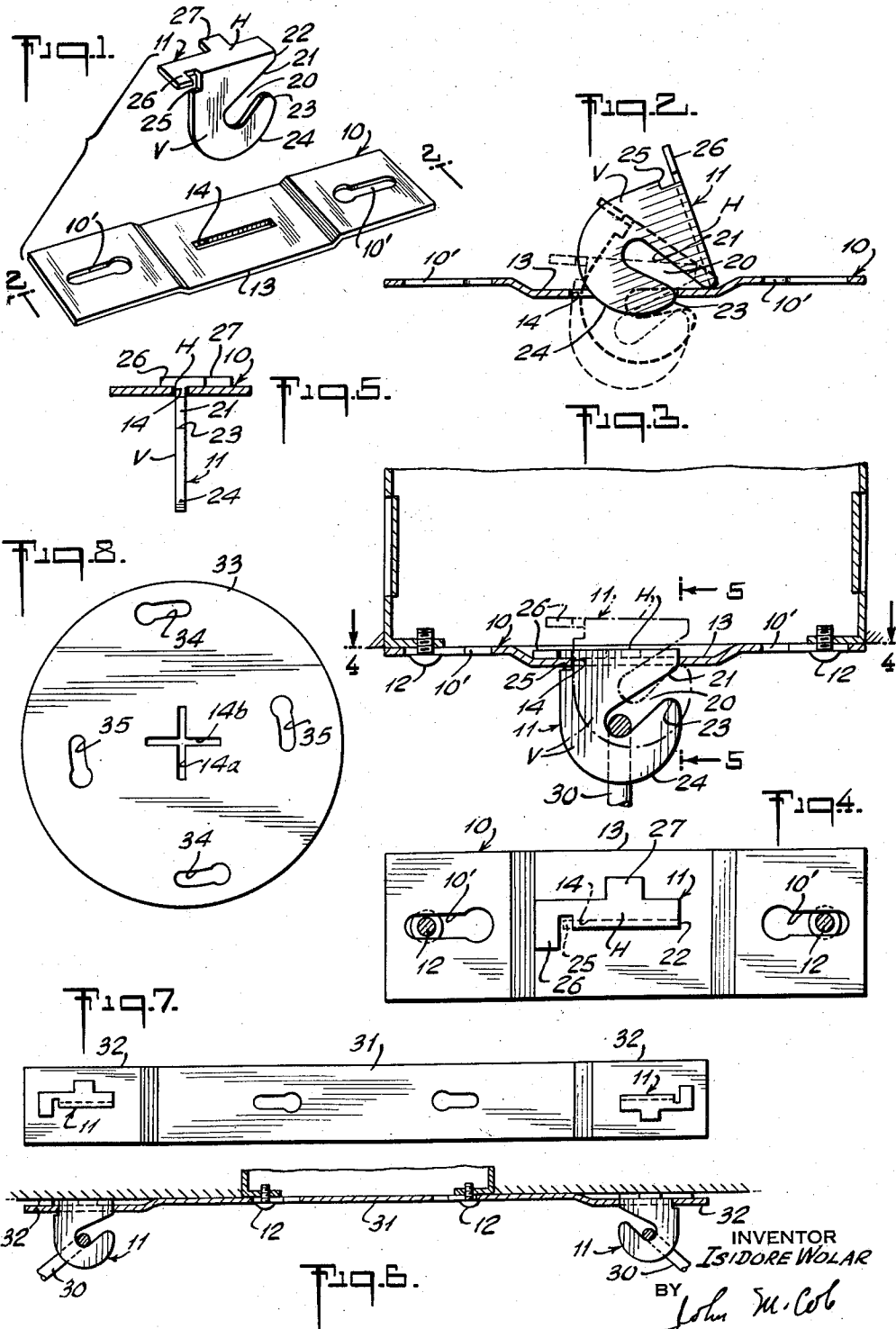
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LIGHTING FIXTURE SUPPORTS

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LIGHTING FIXTURE SUPPORTS

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The present invention relates to lighting fixture supports and is more particularly directed toward outlet box attachable supports, including hook-like members suitable for receiving chain links or loops.

The present invention contemplates a two-part attachment, one adapted to be fixed to the outlet box, preferably by the usual screws carried by the ears of such a box, and provided with one or more slots of limited length and width, the other part of the attachment being in the form of a sheet metal member of T-shaped transverse profile and having a hook-including portion which can by suitable maneuvering be inserted down through the slot in the first member.

According to the present invention, this hook-carrying member is arranged so that in normal use it is held substantially immovable in the slot in the first member due to the inherent shape of the parts and it is impossible to lift the hook member out of position when it carries a chain or other suspension for the lighting fixture. The hook member is suitable for use with slotted members of various forms and supported in various manners.

The outlet box attachable member may be in the form of a strap which spans the outlet box and carries one hook, a longer strap which spans the outlet box, extends beyond it and carries two or more hooks or a disk which closes the outlet box and carries crossed slots.

Other and further objects will appear as the description proceeds.

The accompanying drawings show, for purposes of illustrating the present invention, three embodiments in which the invention may take form, it being understood that the drawings are illustrative of the invention rather than limiting the same.

In the accompanying drawings:

Figure 1 is a perspective view of a lighting fixture support employing a strap designed to span the outlet box opening and a single centrally located hook;

Figure 2 is a cross-sectional view in the direction of the line 2—2 of Figure 1, illustrating three preliminary steps in the insertion of the hook member into the strap;

Figure 3 is a vertical sectional view through an outlet box showing a strap secured to the box and a hook member in place in full lines, and showing it partly lifted in dot and dash lines;

Figure 4 is a section taken on the line 4—4 of Figure 3;

Figure 5 is a vertical sectional view on the line 5—5 of Figure 3;

Figure 6 is a view similar to Figure 3 showing a longer strap carrying two hook members;

Figure 7 is a top plan view of the elongated strap of Figure 6; and

Figure 8 illustrates a round outlet box cover provided with crossed slots for a hook member.

In the form of construction illustrated in Figures 1 to 5, inclusive, the attachment is shown in the form of a strap generally indicated at 10 and a hook member generally indicated at 11. The strap 10 is of the width

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of the usual box strap and is provided with usual holes 10', 10' adapted to receive the screws 12 by which the strap may be secured to the outlet box. The strap is preferably offset or depressed as indicated at 13 and has a longitudinally extending slot 14 preferably about one inch long. The slot is of the proper width to loosely receive the sheet metal hook member 11. This hook member 11 is stamped from a strip of stiff sheet metal by forming a blank and bending it to have the vertical portion V and the horizontal portion H.

The vertical portion V of the hook member 11 has substantially the same depth and length. It is provided with a downwardly extending, laterally opening oblique slot 20. The upper wall 21 of the slot extends over to the right-hand edge 22 of the member as indicated in Figure 1 and terminates just below the bend which connects the vertical portion V with the horizontal portion H of the hook member. The slot is of the proper width to receive the link of a lighting fixture chain or loop of a fixture stem. The slot 20 also forms a nose-like portion 23 for a hook and below this nose portion, the lower edge of the vertical portion V has a narrowed contour as indicated at 24. This may conveniently be a quadrant. The opposite edge may also be similarly curved so that the bottom edge is semi-circular. The upper left edge of the vertical portion V is provided with an upwardly facing shoulder 25 so that the width of the hook member is less above the shoulder than below it, as will be apparent from the drawings.

The upper portion H of the hook member is provided with a prong 26 which extends away from the fold line between the vertical and horizontal portions and may be provided with a second prong 27 which extends in the opposite direction.

When the hook member is to be inserted into the slot in the strap 10, it is first brought to the full line position shown in Figure 2 where it will be seen that only a portion of the hook member adjacent the nose has passed through the opening 14 in the strap. If the strap is horizontal, the hook is released and it drops into place. In falling into place, it turns in a counterclockwise direction (as indicated in Figure 2) through the dot and dash line position to the light dash line position, so that the left portion of the hook member presses down through the slot 14. This is possible because the notch or opening 20 in the hook portion receives the material of the strap 10. When the hook member 11 has moved past the light dash line position of Figure 2, it drops down to the full line position of Figure 3. The camming action of the upper edge 21 of the hook-shaped member has compelled the shoulder 25 to pass under the strap as shown in Figure 3. The hook member now rests in this position.

The hook member cannot be lifted vertically upward because of engagement of the shoulder 25 with the lower surface of the strap. If one attempts to lift it upwardly toward the dot and dash line position of Figure 3, the nose of the hook engages the under surface of the plate and stops the movement of the hook. While one can by grasping the hook and moving it through the reverse path, push it up through the slot, it is impossible to accidentally remove it from the slot by forces applied from underneath. When the chain link 30 is in place, as indicated in Figure 3, it is of course entirely impossible to pass the hook-shaped member up through the opening 14. The hook can be swung in the transverse axis only a small amount as the horizontal portion H provides a T-shaped transverse profile.

In the form of construction shown in Figures 6 and 7, a longer strap 31 is secured to the outlet box by screws 12 as before. This strap preferably has down-

wardly offset ends 32, 32 provided with slots similar to the slot 14 and receiving hook members 11, 11 as indicated. The round plate 33 shown in Figure 8 has pairs of slots 34, 34 and 35, 35 so that the plate can fit either a 4 inch or a 3 inch outlet box, and is provided with crossed slots 14a, 14b. The hook member can be inserted in either of those slots, and hence it may face in any one of four directions.

In my application, Serial No. 411,774, filed February 23, 1954, I have shown the hook member and still further forms of supporting member provided with slots adapted to receive it.

Since it is obvious that the invention may be embodied in other forms and constructions within the scope of the claims, I wish it to be understood that the particular form shown is but one of these forms, and various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. A fixture hanger comprising a fixed horizontal supporting plate having a four sided long narrow slot, a sheet metal hook member of inverted L-shaped cross-section engaging said slot and having a thickness to pass through the slot, said hook member having a horizontal portion and a vertical portion, the vertical portion immediately below said plate being wider than the length of the slot and the vertical portion within the slot being equal to the length of the slot, the vertical portion having a laterally opening hook forming slot extending diagonally downwardly from near the horizontal portion, and having on the edge opposite the slot an upwardly facing shoulder, the upper horizontal portion being longer than the length of the slot in the plate.

2. A fixture hanger such as claimed in claim 1, wherein the horizontal portion of the hook member has an extension opposite the top of the L and overlying the plate so as to prevent swinging the hook member transversely in a direction to prevent passage of the horizontal portion down through the slot.

3. A fixture hanger such as claimed in claim 1, wherein the plate is in the form of a strap adapted to span an outlet box and having screw receiving holes spaced to accommodate outlet box ear-carried screws, and the slot is centrally located.

4. A fixture hanger such as claimed in claim 1, wherein the plate is in the form of a strap adapted to span an outlet box and having screw receiving holes spaced to accommodate outlet box ear-carried screws, and the strap ends extend beyond the said screw receiving holes, each such end having a long narrow slot, there being a hook member in each such slot.

5. A fixture hanger such as claimed in claim 1, wherein the plate is in the form of an outlet box cover and it has two centrally located slots at right angles to one another to form a cross so that the hook member may be mounted in any one of two vertical planes at right angles to one another.

6. Means for supporting lighting fixtures, comprising a normally horizontal first member having holes spaced to receive the attachment screws carried by the ears of the usual outlet box and a narrow slot of limited length and width, displaced from the screw receiving holes, and a second member bent out of sheet metal to be of T-shaped transverse profile and having the horizontal top thereof bearing on the upper surface of the first member on opposite sides of the slot and the dependent portion extending down through the slot, the dependent portion of said T-shaped member having a width adjoining said top equal to the slot length and a depth equal to the

thickness of said first member, said dependent portion further having a greater width immediately below said first member to obstruct vertical passage of the second member up through the slot, the second member having an obliquely, downwardly extending, hook forming cut-out which permits shifting the second member diagonally upwardly to bring the point of the hook against the lower surface of the first member for removal of the hook from the slot.

7. In combination, a normally horizontal member for attachment to a support and having a narrow slot of limited length and width, a bent, sheet metal hook member of T-shaped transverse profile having its horizontal upper part resting on the first member and its vertical part extending downwardly through the slot, the vertical part having an obliquely downwardly extending, laterally opening hook forming slot whose upper wall engages one end of the slot in the first member to cam the hook member toward the other end of the slot in the first member during installation of the hook member, the hook member having along the edge opposite the hook-forming slot and closely below the upper portion an upwardly facing shoulder engaging the lower surface of the first member and preventing vertically lifting of the hook member out of the slot in the first member.

8. A hook member for supporting lighting fixture chain, loops, and the like, said hook member being formed from a piece of stiff sheet metal bent to a T-shaped transverse profile, the lower vertical portion having an obliquely downwardly extending laterally opening slot whose upper wall extends substantially to the level of the lowest surface of the horizontal upper portion, the upper opposite side edge of the vertical portion having an upwardly facing shoulder whereby the vertical portion is narrower near the upper horizontal portion than immediately below the shoulder.

9. A lighting fixture chain support in the form of a stamping of T-shaped transverse profile, the lower vertical portion of the stamping having substantially the same width as the length and being provided with a diagonally disposed, laterally opening, chain receiving slot whose upper wall terminates near the horizontal portion of the stamping and whose lower edge forms a nose, the lower edge of the stamping below the nose extending downwardly and inwardly under the slot, the edge of the vertical portion opposite the slot opening having an upwardly facing shoulder so that the vertical portion immediately below the horizontal portion of the stamping is of narrower width than the width immediately below the shoulder.

10. The combination with the support of claim 9 of a strap supporting said hook, said strap having a slit of a width to receive the vertical portion of the said support and of restricted length to accommodate only the part of the vertical portion of the support above the said shoulder.

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