

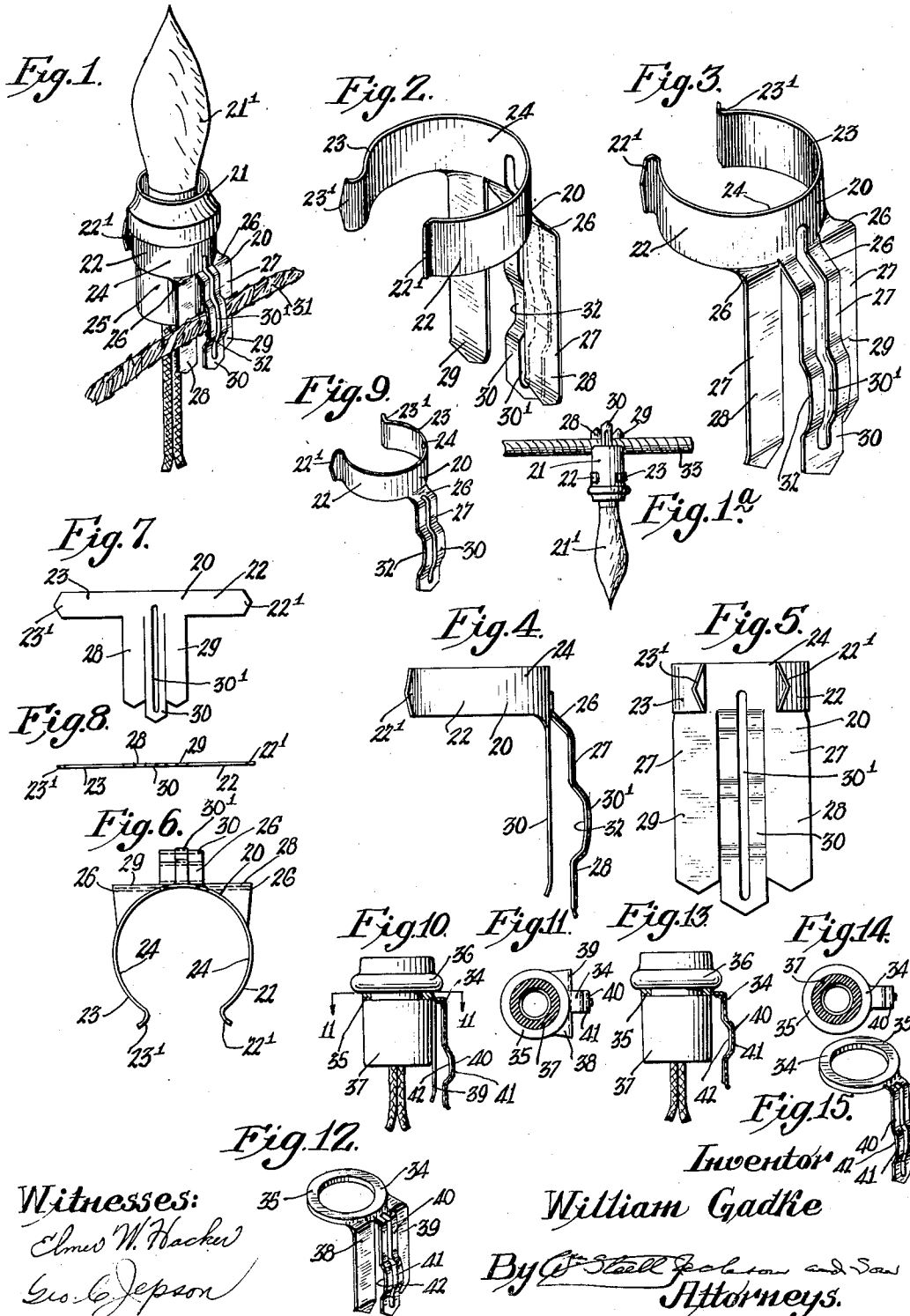
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CLIP FOR ATTACHING ELECTRIC LIGHTS TO CHRISTMAS TREES

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CLIP FOR ATTACHING ELECTRIC LIGHTS TO CHRISTMAS TREES

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My invention relates to clips for attaching electric lights to the branches of trees for decorative purposes.

The main purpose of my invention is to provide a one piece metal clip having horizontally and vertically disposed spring fingers that will grip both an electric light socket and the branch of a tree.

A further purpose is to construct a clamp for attaching electric lights to Christmas trees for decorative purposes in which horizontally disposed spring fingers are provided to grip the electric light socket and vertically disposed spring fingers, one concaved toward another, are provided to grip the branch of a tree, in the pocket thus provided.

A further purpose is to stamp a spring metal clip to provide horizontally and vertically disposed spring fingers with a vertically disposed reinforcing rib approximately the full length of the spring finger.

A further purpose is to provide a spring clip of pressed metal with a horizontally disposed ring section adapted to surround a moulded portion of an electric light socket and to be moulded therein and spring fingers projecting outwardly and downwardly to make engagement with the branch of a tree.

Referring to the drawing:

Figure 1 is a perspective view of my improved spring clip, holding an electric light and fastened on the branch of a tree.

Figure 1a is a front elevation of my clip carrying an electric light and being secured to a rope or wire in an inverted position from that of Figure 1.

Figure 2 is a detail perspective view of my clip.

Figure 3 is a perspective view of my clip, but looking in a different direction from that shown in Figure 2.

Figure 4 is a side elevation of my clip.

Figure 5 is a front elevation of Figure 4.

Figure 6 is a top plan view of Figure 5.

Figure 7 is a punched blank of my clip before its final bending operation takes place.

Figure 8 is an end view of Figure 7.

Figure 9 is a view similar to Figure 3 but showing a modification.

Figure 10 is a side elevation of a socket for

electric lights with one form of my clip moulded in place in the socket.

Figure 11 is a sectional top plan view taken on the line 11-11 of Figure 10.

Figure 12 is a detached perspective view of the form of clip shown in Figures 10 and 11.

Figures 13, 14 and 15 are views similar to Figures 10, 11 and 12, but illustrating a modified form of clip.

My invention is intended to be used to provide an inexpensive, reliable and convenient means for attachment of an electric light socket to a Christmas tree or for other decorative purposes, and which will be held firmly in place but which can be attached easily to or detached from a support.

I find it preferable to construct my clip of sheet spring metal by any suitable punching or die forming means. This is a matter of preference only, as any convenient means of manufacture may be employed.

In Figure 1 the clip 20 is shown supporting an electric socket 21 and bulb 21' by horizontal spring fingers 22 and 23, formed integral with the body of the clip. The fingers 22 and 23 extend laterally and are curved at 24 to surround the body 25 of the electric socket 21. The fingers are flared at their outer ends 22' and 23' to allow for attachment to the body 25 or light socket.

Projecting outwardly at 26 and downwardly at 27 in Figures 1 to 7 are three spring fingers 28, 29 and 30. The fingers 28 and 29 are spaced a short distance from the finger 30 to allow for engagement of the fingers 28 and 29 with one side of a support 31 (here shown as the branch of a tree) and for engagement of the finger 30 with the opposite side of the support. The fingers 28, 29 and 30 are integral with the body of the clip 20 and the finger 30 is strengthened by a bead 30' pressed from the finger.

It will be evident that the socket can easily be inserted between the fingers 22 and 23, after which the fingers will firmly grip the socket and at the same time support the socket to hold it in the desired position.

After the horizontal fingers are placed about the socket, the downwardly projecting fingers 28, 29 and 30, are placed about the

support 31 to hold the clip 20 with the socket and light in any position.

If it is desired to place a light on a Christmas tree, the arrangement of the fingers 28, 29 and 30 is such as to allow for angular placement and projection of the socket and at the same time securely hold the socket and bulb in place.

The concave formation of the spring finger 30 will also allow for attachment to a thickened support, such as a heavy branch of a tree, a thickened rod, or a rope, when used for other decorative purposes. The enlarged and elongated space 32 between the inner spring fingers 28 and 29 and the spring finger 30 is especially designed to fit about and engage larger or thicker supports and to let the clip be held on branches at right or any other angle, the space 32 between the fingers 28 and 29, and 30 will allow for gripping smaller supports than that of the enlarged portion.

In Figure 1a I have shown my clip with its spring fingers 28, 29 and 30 engaging a rope or wire support 33 and depending from the support, with the socket and lamp held by the laterally extending spring fingers 22 and 23 and in an inverted position. It may be desirable to have my spring clip carrying the socket and electric bulb supported from a rope or wire.

Figures 7 and 8 are blanks punched or otherwise formed from sheet spring material. The blanks are punched and are easily cut to be later formed into the clip of Figures 1 to 6.

In Figure 9 I have shown a modification of the structure of Figures 1 to 7 inclusive. The clip is the same in every respect excepting that it does not have the depending spring fingers 28 and 29. When this form of clip is used the body 25 of the socket 21 acts as the inner retaining member in place of the inner spring members 28 and 29 of Figures 1 to 7, inclusive. Otherwise the construction of Figure 9 is the same as the previously mentioned figures.

Another variation of my invention presents itself in the illustrations of Figures 10, 11 and 12 in which a clip 34 has a horizontally extending ring portion 35 adapted to be moulded into an electric light socket at any desirable place, preferably at a point directly below a rib 36 of a socket 37. The clip has downwardly extending spring fingers 38 and 39 adjacent the moulded socket 37 and, spaced outwardly therefrom, carries another downwardly extending finger 40 bent outwardly at 41 to provide a space 42 to make a gripping engagement with any form of support.

In Figures 13, 14 and 15 I have shown another variation of a clip moulded or imbedded in a socket and in which a downwardly extending spring finger 40 is adapted to make gripping engagement against any

support to which the clip may be attached. In this latter form as in the form of Figure 9, the body of the moulded socket will act as the inner spring retaining finger taking the place of the fingers 28 and 29 in Figures 1 to 8 inclusive.

It will be noted that by the use of my clip it will be possible to support electric light bulbs in any position, that is, they may be held in any upright position as in Figure 1 or they may be suspended from a rope or wire, as shown in Fig. 1a.

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

1. A one piece clip for holding electric light bulbs to Christmas tree branches comprising a band adapted to encircle and grip a bulb socket and a holder having generally parallel clip fingers, one of which is laterally concaved intermediate its length toward cooperating fingers to give a resting place for the branch.

2. A one piece clip for holding electric light bulbs to Christmas tree branches comprising a band adapted to encircle and grip a bulb socket and a holder having a plurality of generally parallel spaced cooperating fingers adapted to lie on opposite sides of the branch and one of them concaved intermediate its length toward the other to form a pocket for the branch.

3. A holder for securing electric lights to Christmas tree branches comprising a band engaging the base of the electric light and three parallel fingers, two parallel and in the same plane and a third generally parallel and spaced from the plane of the other two and having a concavity toward the plane of the other two and longitudinally ribbed for reinforcement purposes.

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