March 21, 1939. O. F. TALLMAN 2,150,995

WIRE BRACKET

Filed July 22, 1937

Fig. 1

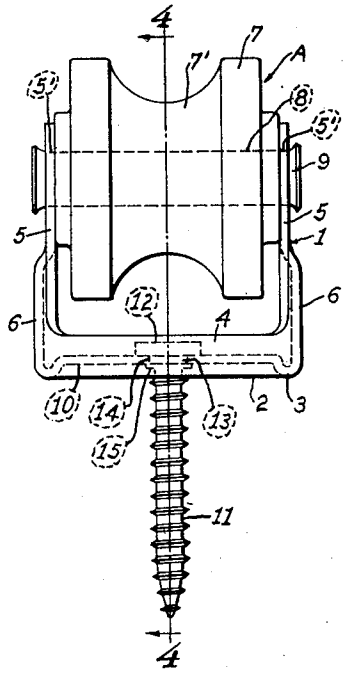


Fig. 2

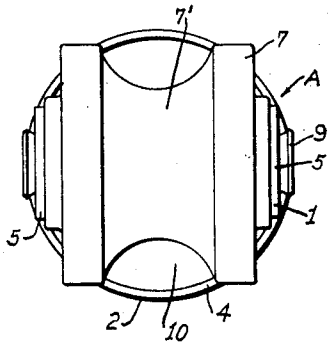


Fig. 4

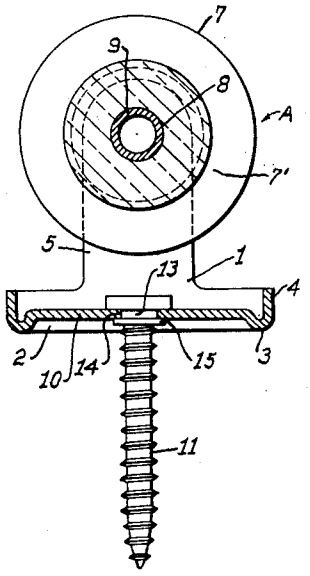


Fig. 3

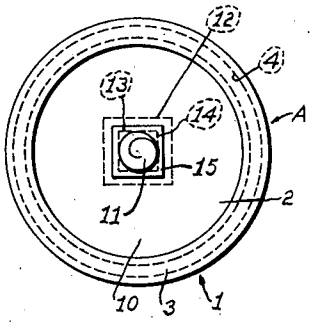


Fig. 5

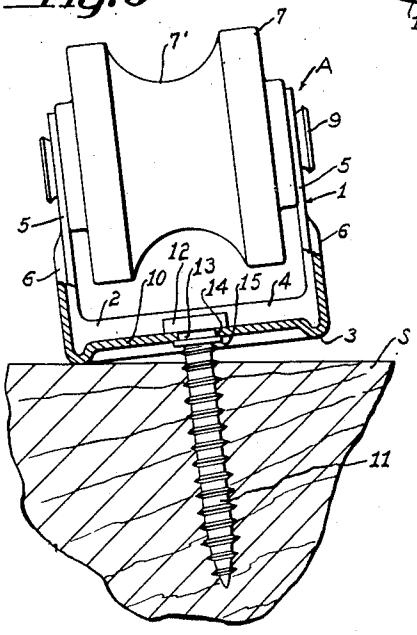
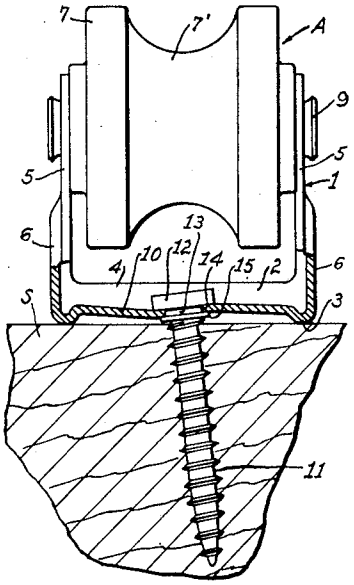


Fig. 6



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WIRE BRACKET

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Application July 22, 1937, Serial No. 154,950

2 Claims. (Cl. 174—164)

This invention relates generally to brackets for holding and supporting electrical wires, and more specifically to wire brackets of the type known as house brackets, the predominant object of the invention being to provide an improved wire bracket of this type which includes a wood screw for securing the bracket to a wall or other part of a building or other structure, which wood screw is attached to a yieldable part of the bracket structure so that the body portion of the bracket may be screwed into flat contact with a support therefor, even though the wood screw is screwed into the support at an angle to its proper position.

Prior to this invention most house brackets of the type to which this invention relates were provided with wood screws for securing the brackets to walls and other parts of buildings and other structures which were rigidly and non-movably fixed to the insulating body portions of the brackets. Wiremen apply brackets of this type to supporting structures by grasping the insulating body portions of the brackets and jamming the points of the wood screws into the supporting structures, after which the brackets are rotated to screw the wood screws into the structures until the faces at the base portions of the insulating body portions contact with the supporting structures. Due to this method of applying the brackets to supporting structures, the wood screws quite frequently are screwed into the structures at angles to their desired course, and when the wood screws are rigidly and non-movably fixed to the insulating body portions of the brackets, as was usually the case prior to this invention, such angular introduction of the wood screws into the supporting structures prevents the base portions of the insulating body portions of the brackets from being brought into flat contact with the faces of the supporting structures to which the brackets are applied.

The improved bracket disclosed herein eliminates the disadvantages mentioned above, inasmuch as the wood screw of the improved bracket is fixed to a part of the bracket which is flexible and capable of distortion. This arrangement provides for relative movement between the wood screw and the remainder of the bracket, and, therefore, if the wood screw of the bracket is introduced into the supporting structure at an angle to its desired, straight course, the remainder of the bracket which includes the insulating wire receiving element thereof may nevertheless be screwed into flat contact with the supporting structure.

Fig. 1 is an elevation of the improved wire bracket.

Fig. 2 is a plan view of the wire bracket illustrated in Fig. 1.

Fig. 3 is an inverted plan view of the bracket illustrated in Fig. 1.

Fig. 4 is a vertical section on line 4—4 of Fig. 1.

Fig. 5 is a view partly in elevation and partly in section showing the improved wire bracket as it appears when the wood screw thereof is being introduced into a supporting structure at an angle to its desired course.

Fig. 6 illustrates the wire bracket shown in Fig. 5 as it appears when the bracket has been brought into flat contact with the supporting structure in spite of the angular introduction of the wood screw into the supporting structure.

In the drawing, wherein is shown for the purpose of illustration, merely, one embodiment of the invention, A designates the improved wire bracket generally. The wire bracket A includes a bracket element 1 formed preferably of sheet metal which is provided with a circular base portion 2, said circular base portion having a projected circular, marginal bead 3 which is adapted in the use of the wire bracket A to be drawn into flat contact with a support to which the wire bracket is attached as shown in Fig. 6, wherein the support is designated by the reference character S. The circular base portion of the wire bracket is provided with an annular flange 4 which is a projected continuation of the outer portion of the bead 3, and extended from said flange are opposed, spaced apart legs 5. The portions of the legs 5 located adjacent to the circular base 2 are provided with strengthening ribs 6 pressed therein which extend longitudinally of the legs and impart to the legs the desired rigidity.

Adjacent to the outer ends of the legs 5 alined apertures 5' are formed therein and interposed between said legs is an insulating element 7, formed of porcelain or other suitable electrical insulating material, which receives in engagement therewith the electrical conductor supported by the wire bracket. While the insulating element 7 may be of any desired shape the one illustrated in the drawing is of circular cross-sectional shape and is provided with an annular, wire-receiving groove 7', and said insulating element has formed therethrough an opening 8. The insulating element is secured to the bracket element 1 by means of a tube 9 which extends through the apertures 5' of the legs 5 and through the opening 8 of the insulating element 7, the

opposite end portions of said tube being expanded as shown in Figs. 1, 2, 5, and 6 to prevent accidental displacement of the tube from its position in the bracket assembly.

The base portion of the bracket element 1 includes as a part thereof a circular plate portion 10 to which is attached a wood screw 11. The wood screw is provided with a head portion 12 and the portion 13 of the shank of the wood screw which is located immediately adjacent to said head portion is of non-circular shape. The non-circular portion 13 of the shank of the wood screw is disposed in an opening 14 formed through the plate portion 10 of the bracket element 1 which is of corresponding non-circular shape, and in order to secure the wood screw to the bracket element 1 a portion of the shank of said wood screw is upset by a riveting action to provide a flange 15 that contacts with the face of the plate portion 10 of the bracket element opposite to that face of said plate portion with which the head 12 contacts.

When, in the use of the improved wire bracket disclosed herein, the wood screw is started into a support at an angle to the desired straight course, rotation of the wire bracket while screwing the wood screw into the support will eventually bring one side of the base portion of the wire bracket into contact with the face of the support and the opposite side of said base portion out of contact with said face of the support as shown in Fig. 5 wherein the support is designated by the reference character S. In such a situation a wire bracket of the type heretofore extensively used would either have to be removed when its wood screw had been extended into the support at an angle, or the wire bracket would be permitted to remain in attachment with the support in its crooked condition.

If, in the use of the improved wire bracket disclosed herein, however, the wood screw is introduced into the support at an angle, the wire bracket is rotated just as if the wood screw had been properly introduced in place in the support. When one side of the base portion of the improperly applied wire bracket contacts with the face of the support as shown in Fig. 5 the rotation of the wire bracket is continued and because the metal of the circular plate portion 10 of the bracket element 1 possesses flexibility, said plate portion will be distorted and the entire bead 3 of the base portion of the wire bracket will be brought into contact throughout its entire length with the face of the support as shown in Fig. 6. The importance of the bead 3 is that it provides the bracket element 1 with a strengthened marginal portion at the base portion thereof which is not distorted when the circular plate portion 10 of the element 1 is distorted because the screw 11 is improperly inserted into a support as shown in Figs. 5 and 6. If the bead were not present in the structure the entire base portion of the bracket element 1 would be distorted by angular insertion of the screw 11 into a support and this misshapened base portion would prevent the desired flat contact of the element 1 of the wire bracket with the support.

An important feature of the invention is that the improved wire bracket is so constructed and arranged that even though the insulating element 7 is broken, as frequently happens in the use of devices of this general type, the attached wire will not drop to the ground, as the wire will still be engaged by the tube 9. Also in rotating the improved wire bracket when the wood screw thereof is being screwed in a support, the shank of a screwdriver or other suitable tool may be passed into the tube 9 and the bracket rotated thereby without applying strains to the insulating element which might break the insulator.

I claim:

1. A wire bracket comprising a base portion, an insulating element supported by said base portion, and a screw for attaching the wire bracket to a support, said base portion including a flexible portion to which said screw is rigidly fixed so as to permit the axis of the screw to move out of alinement with respect to the axis of the wire bracket.

2. A wire bracket comprising a base portion, an insulating element supported by said base portion, and a screw for attaching the wire bracket to a support, said base portion including a flexible portion, and an outstanding bead formed on said base portion and adapted to contact with the support to which the wire bracket is attached so as to space said flexible portion from said support to permit flexing of said flexible portion, said screw being rigidly fixed to the said flexible portion of said base portion whereby said screw may be moved out of its normal position with a consequent distortion of said flexible portion of the base portion.

OSCAR F. TALLMAN.