Dec. 7, 1943. H. L. WICKSTROM 2,336,144

HOUSE-END SERVICE ATTACHMENT

Filed Feb. 4, 1942

Fig. 1

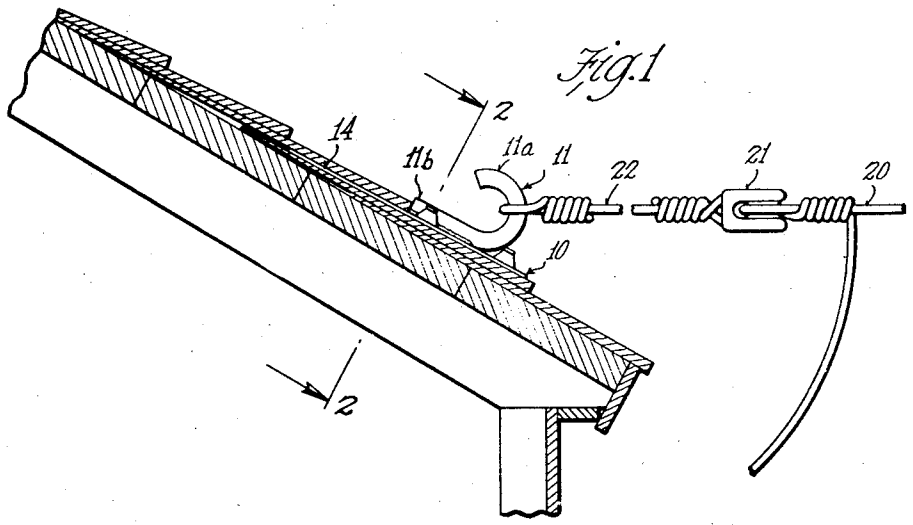


Fig. 2

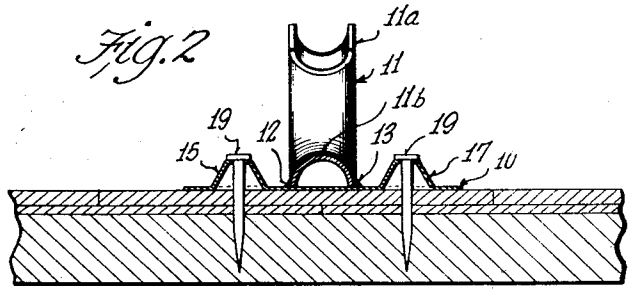
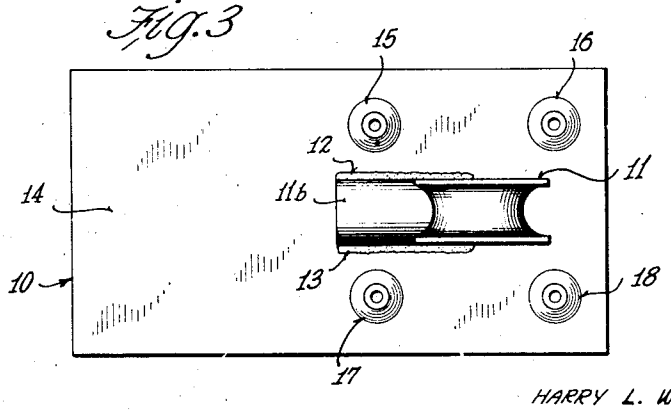


Fig. 3



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HOUSE-END SERVICE ATTACHMENT

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6 Claims. (Cl. 248—237)

This invention has to do generally with devices used for supporting electrical conductor wires and pertains specifically to a device adapted to be secured to a sloping roof—more particularly, a shingled roof—and designed for attachment thereto of a so-called dead-end connection.

In bringing electrical supply lines or telephone lines into a house it is generally a code requirement that an overhead clearance of at least eight feet be maintained. This has often given rise to some little difficulty in connection with one story bungalows where the supply lines could not conveniently be brought in at a point where a dead-end connection could be made to a wall directly under the gable at the required height; and this was true because, to the best of my knowledge, there was not heretofore available any dead-ending support suitable for attachment to a sloping shingled roof which would not have been objectionable on the score of being injurious to the roof as, for instance, the likelihood of causing the roof to leak.

The principal object of the present invention is to devise a dead-end support which can easily be secured to a sloping roof—particularly a shingled roof—without prospect of resulting injury to the roof, and which is so designed as to preclude accumulations of water thereunder which would tend to cause deterioration of the underlying shingle surface—where the shingles are of wood.

Another object is to provide a dead-end support which is capable of being so anchored to the roof that it will resist successfully the pull of the conductor attached thereto without being apt to work loose and thus permit water to seep into the shingles as a result of enlargement of the nail holes through which it is attached.

Still another object is to devise a dead-end support which is adequately strong and rigid, but which nevertheless can be manufactured very cheaply.

The novel features of my dead-end support, by virtue of which the aforementioned objects have been realized, will be pointed out in the following detailed description in conjunction with the accompanying drawing wherein is depicted the preferred embodiment of the invention.

In the drawing:

Fig. 1 shows a roof-section with a dead-end support mounted thereon, and portrays the manner in which a lead-in conductor ordinarily is dead-ended to the support;

Fig. 2 is a sectional view taken along the line 2—2 of Fig. 1—being drawn to a considerably enlarged scale by comparison with Fig. 1; and

Fig. 3 is a plan view of the dead-end support.

The dead-end support illustrated comprises a rectangular base-plate 10 of extended area, and a dead-end attachment member 11. The dead-end attachment member is made of a strip of sheet metal of semi-circular channel-shape cross section and consists of a looped portion 11*a*, preferably hook-shaped, and a straight shank portion 11*b*. The shank portion 11*b* is welded along its lateral extremities, at 12 and 13, to one surface of the base-plate. Both the base-plate and attachment member should be made of fairly heavy gauge sheet steel stock and galvanized or otherwise rust-proofed. By making the dead-end attachment member from a strip of channel-shape cross section there is effected a maximum degree of rigidity with a minimum of material—and the welds 12 and 13 are thereby spaced apart in such manner as to accomplish a connection to the base-plate having a high degree of lateral rigidity; that is to say, a strong and rigid connection to the base-plate and one which is easy to weld and therefore economical from the manufacturing standpoint.

Attachment member 11 is situated near what may be called the forward end of the base-plate—which leaves a flat area 14 of considerable length—which latter area will for convenience be called the rear portion or rear area of the base-plate.

Disposed at either side of the dead-end attachment are frustro-conical bosses 15, 16, 17, and 18 which are formed in the base plate and pierced axially, each to accommodate a nail 19 by means of which the support is secured to the roof—see Fig. 2. Bosses 15 to 18, inclusive, serve two useful purposes. First they tend to prevent distortion of the base-plate resulting from hammer blows in driving the nails, and they tend to prevent water seeping through the nail holes to the under side of the base plate. This is due, in part, to the fact that the nail holes are elevated in such manner as to prevent pools of water forming therearound, and to the more important fact that because of the bosses the nail heads are always driven more firmly against the metal surrounding the nail holes than would be the case if the bosses were not provided. The bosses being spread out at their bases tend to prevent the base-plate being distorted by hammer blows.

In mounting the support on a roof, as shown most clearly in Fig. 1, the rear portion 14 is pushed under the butt end of a shingle so that

rain water flowing down the roof will not get under the rear edge of the base-plate and thereby give rise to a more or less permanent wet spot which would tend to cause the underlying shingle to rot.

The support is mounted at a point on the roof, as shown in Fig. 1, which will afford the necessary overhead clearance for the incoming conductor 20—the latter being connected to the hook through the medium of a suitable insulator 21 and a dead-end strain wire 22.

Conductor 20 being usually drawn taut and frequently being subjected to whipping winds, it is apparent that thee dead-end support is likely to be subjected to considerable physical stress—which, in turn, is necessarily transmitted to the shingles; and it will be evident that the support, to be entirely successful, must be not only rugged in itself, but of such design that the forces transmitted to the shingles will not be likely to do injury thereto. The dead-end support which I have illustrated is well adapted to meet these requirements, first because the four nail holes are adequately spaced apart and, secondly, though of at least equal importance, because the rear portion 14 of the base plate is held down by an overlying shingle in such manner as to afford good and adequate leverage for resisting the pull on the hook—and said overlying shingle can be nailed down adjacent the rear edge of the base-plate so as to further increase this advantage.

If desired, the exposed edges of the base-plate can be sealed with pitch or other suitable waterproofing compound, thus further insuring against water infiltration and consequent injury to the shingles.

Although my new dead-end support is intended primarily for use on shingled roofs, its utility, obviously, is not so limited.

I claim:

1. A dead-end support comprising a flat sheet metal base-plate and dead-end attaching means secured to a surface thereof and projecting in a direction perpendicularly therefrom, said means comprising a strip of channel-shape cross-section bent to form an eye suitable for reception of a strain wire.

2. A dead-end support comprising a flat sheet metal base-plate and a hook attached to and projecting in a direction perpendicularly from a surface of said base-plate, said hook being formed of sheet metal and having a channel-shape cross-section.

3. A dead-end support comprising a flat sheet metal base-plate and a hook having a shank portion of channel-shape cross-section, the lateral edges of said shank portion being welded to a surface of said base-plate with the hook portion per se projecting in a direction perpendicularly from said surface.

4. A dead-end support comprising a flat sheet metal base-plate of extended area having a rear portion adapted to be inserted under the butt edge of a roof shingle with the forward portion thereof exposed, and a hook having a shank portion of channel-shape cross-section, the lateral edges of said shank portion being welded to a surface of said base-plate, said hook being situated on the forward area of said base-plate and projecting in a direction perpendicularly from said surface.

5. A dead-end support including a sheet metal base-plate and a dead-end attachment member secured to a surface of said base-plate, said member comprising a metal strip of channel-shape cross section having a shank portion and a looped portion, said shank portion being welded to said base-plate surface along the lateral extremities of said shank portion, said looped portion projecting in a direction perpendicularly from said surface.

6. A dead-end support comprising a flat sheet metal base-plate of extended area having a rear portion adapted to be inserted under the butt edge of a roof shingle with the forward portion thereof exposed, and a dead-end attaching member disposed on a surface of said base-plate at the forward portion thereof, said attaching member being formed of a metal strip of channel-shape cross section and comprising an eye portion and a shank portion, the lateral edges of the channel-shape strip which form said shank portion being welded to said surface, said eye portion projecting in a direction perpendicularly from said surface, said base plate having a plurality of pierced bosses situated adjacent said attaching member and to either side thereof, said bosses projecting from the same side of said base-plate as that from which said attaching member projects.

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