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C. G. ANDERSON

2,442,158

SOLDERING LUG

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FIG. 1.

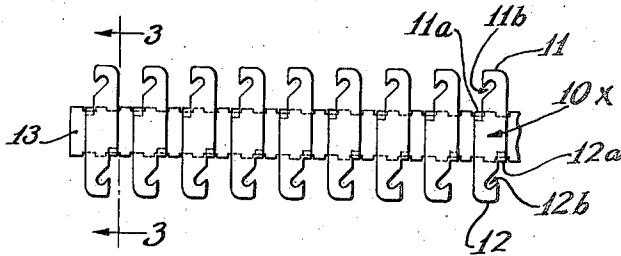


FIG. 2.

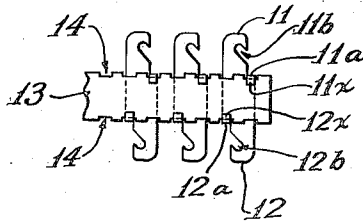


FIG. 3.

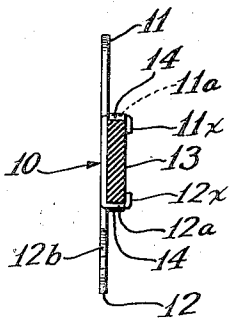
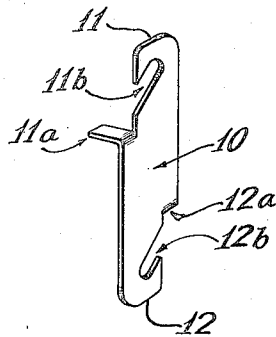


FIG. 4.



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UNITED STATES PATENT OFFICE

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SOLDERING LUG

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2 Claims. (Cl. 173-324)

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This invention pertains to electrical connecting devices and has as its principal object the provision of an improved soldering lug.

Soldering lugs of a variety of shapes and type are known in the art; some are attached to their mounting by means of interlocking certain integral body parts thereof in holes formed in the mounting; others are mounted by means of rivets passing therethrough and through the mounting.

Connection or soldering lugs of the class herein described are frequently mounted on thin strips of insulation, for example, Bakelite strips, which may be $\frac{1}{8}$ inch thick, or even less, and as little as $\frac{3}{8}$ inch wide; the length of such strips is variable, 6 to 10 inch lengths being common.

The common practice in attaching soldering lugs to such thin, narrow strips, is to pierce the strips with a succession of holes spaced apart along the length of the strip at intervals corresponding to the spacing desired between the lugs; then upset portions of the lugs are passed through said holes and peened or crimped over. Rivets are frequently employed in place of the upset, extruded, or punched-out portions of the lugs.

A great objection to the aforesaid practices is that the (necessarily) thin insulating strips are greatly weakened by any piercing or imperforation therethrough, especially in the center regions thereof, and much breakage results both in the manufacture and use of this type of construction.

The lug of this invention overcomes the foregoing objections by providing mounting ears near opposite ends thereof and adapted to be bent over the edges of the narrow mounting strip, eliminating the necessity for central or medial imperforations in the body of the insulating strip.

Other objects, advantages, and aspects of novelty peculiar to the improved lug will appear as the following description proceeds in view of the accompanying drawing, in which:

Fig. 1 is a front elevational view of a number of lugs assembled on a mounting strip;

Fig. 2 is a rear elevational view similar to Fig. 1;

Fig. 3 is a side elevational view of the novel lug, to enlarged scale, taken in section through lines 3-3 of Fig. 1;

Fig. 4 is a perspective of the novel lug, to enlarged scale.

Referring to Fig. 4, the improved lug consists of a thin metal stamping including a central elongated body portion 10 terminating at oppo-

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site ends in reversely hooked lug portions 11 and 12. It will be observed that the lug portions 11 and 12 are offset with respect to each other, that is to say, lug portion 11 lies on a side of a longitudinal center line through the main body of the stamping which is opposite from the side upon which the remaining lug portion 12 lies.

Adjoining each lug portion 11 or 12 is a corresponding ear 11a and 12a (see Fig. 3 also), each struck from the body of the lug so as to lie on the open side of the corresponding slot 11b or 12b, forming the hook or lug proper, to which the electrical conductors are attached preparatory to soldering.

As illustrated in Fig. 2, the lugs are adapted to be mounted on a narrow strip 13 of insulating material, such as Bakelite, such strip being prepared by having punched along both longitudinal edges thereof, a plurality of notches 14, spaced in such manner that a notch will confront each ear portion 11a or 12a of each lug, when the latter are placed upon the strip.

The endwise portion 11X and 12X of each ear on each lug, are struck over and around the mounting strip, as shown in Fig. 2 and in the magnified sectional view of Fig. 3, thus securely fixing the lugs on the strip.

In Fig. 1 there is shown the front view (opposite to that of Figs. 2) of a terminal strip employing the new soldering lugs, from which it will be observed that there is a considerable flat area 10X of the lug disposed against the mounting strip in each instance, by reason of which there is some reinforcement of the thin strip. Since there are no perforations in the median body portions of the mounting strip, and since the depth of the notching 14 may be kept quite shallow—merely deep enough for the ear portions 11a and 12a to catch in and prevent longitudinal shifting of the lugs—a stronger construction results than is possible with the same thickness and size of mounting strip in prior constructions wherein one or another type of median body imperforation is employed in locating or securing the lug.

The disposition of ear portions 11a and 12a in notches 14 prevents longitudinal displacement of the individual lugs, and disposition of said ear portions in offset relation at opposite ends of the lugs prevents rocking thereof.

By punching ear portions 11a, 12a, and lug slots 11b and 12b from the same sides, respectively at each end of the lug, the die construction is simplified and material wastage minimized.

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While extremely simple in design structure and appearance, the novel lug fulfills a need in the art for a lug which will permit the use of relatively thin insulation strips by reason of the fact that such strips need not be weakened by imperforations, but are in effect reinforced by the lugs. The lug may be cheaply manufactured and attached. Bending of the lug projections or extremities of the novel lugs does not disturb its attachment or strength.

Having thus described my invention in an improved soldering lug, what I claim as new and wish to protect by Letters Patent of the United States is:

1. A terminal strip including soldering lugs for electrical connections and comprising an elongated strip of insulation providing a mounting strip, said strip having notches formed along the opposite longitudinal edge portions thereof, and lug portions on said strip and each comprising an elongated piece of metal placed against said mounting strip crosswise of the latter and each having an ear portion disposed on opposite sides thereof and turned back and over a corresponding edge portion of the strip in one of said notch portions, leaving a lug projection on each side of said strip, each said lug projection being dis-

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posed on a side of the longitudinal axis of said piece of metal opposite from the other said lug projection.

2. A soldering lug for electrical connections and comprising an elongated strip of metal having mounting ear portions formed at opposite ends thereof by turning back an edge portion from each of said ends, but on opposite sides of the longitudinal axis of said strip, leaving lug projections at said opposite ends of the strip, each said projection being disposed on a side of the long axis of the strip opposite from the other, and each said projection having a conductor notch formed therein and opening into the edge portion along which the corresponding ear portion has been turned back.

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20 The following references are of record in the file of this patent:

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