L. F. KEPPLER.

INSULATOR BRACKET.

APPLICATION FILED AUG. 6, 1915.

1,219,746. Patented Mar. 20, 1917.

Fig. 1.

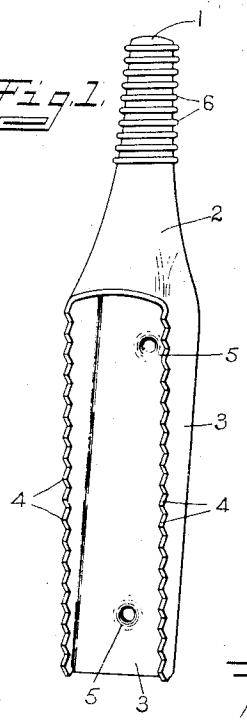


Fig. 2.

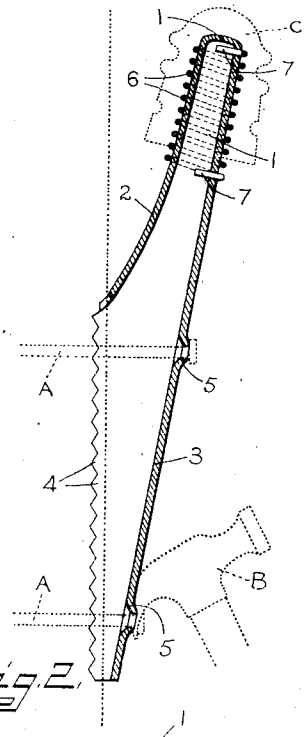
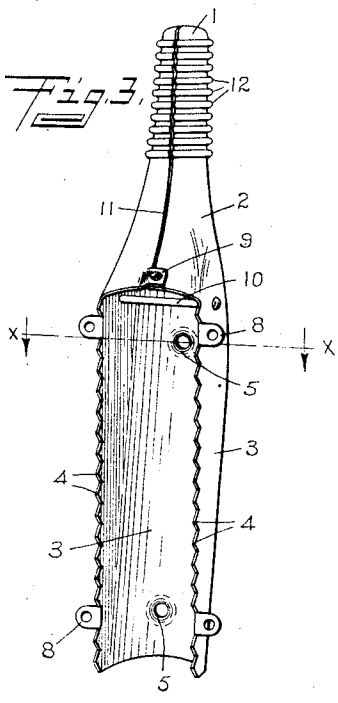


Fig. 3.



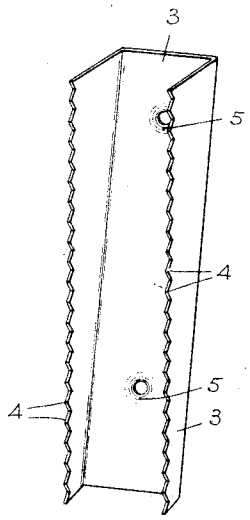


Fig. 4.

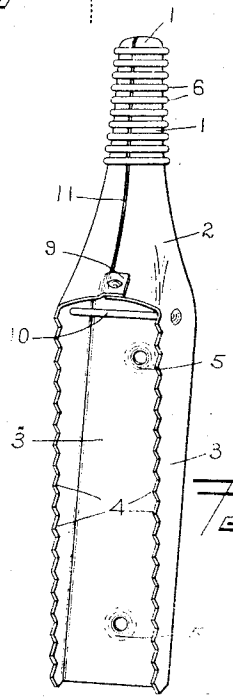


Fig. 5.

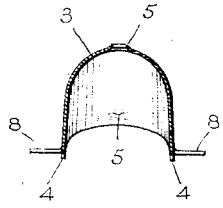


Fig. 6.

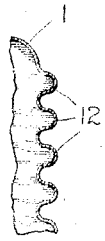


Fig. 7.

Witness

A. W. Jamieson.

L. F. Keppler, Inventor

By David O. Barnell.

Attorney.

UNITED STATES PATENT OFFICE.

LEWIS F. KEPPLER, OF HARLAN, IOWA.

INSULATOR-BRACKET.

1,219,746. Specification of Letters Patent. Patented Mar. 20, 1917.

Application filed August 6, 1915. Serial No. 44,099.

To all whom it may concern:

Be it known that I, LEWIS F. KEPPLER, a citizen of the United States, and a resident of Harlan, in the county of Shelby and State of Iowa, have invented certain new and useful Improvements in Insulator-Brackets, of which the following is a specification.

My invention relates to supports for electrical conductors, and particularly to brackets for carrying the insulators used in supporting wires for telegraph, telephone, electric lighting and like purposes. It is the object of my invention to provide a simple, inexpensive and durable insulator-bracket, made entirely of metal so as to be practically indestructible; to provide means for compensating the differences in expansion and contraction of the insulator and the bracket due to changes of temperature; to provide means for securely fastening the bracket to a support; and to provide means facilitating the removal of the bracket from the support. My invention provides further a simple and durable pole-step, formed by omitting the head and neck-portion of the bracket.

Constructions embodying my invention are illustrated in the accompanying drawings, in which Figure 1 is a perspective view of the cast-metal form of the bracket, Fig. 2 is a vertical sectional view of the same, Fig. 3 is a perspective view of the formed sheet-metal type of the bracket, Fig. 4 is a similar view showing the same adapted as a pole-step, Fig. 5 is a similar view showing a slightly modified form of the sheet-metal bracket, Fig. 6 is a transverse section on the plane of the line *x*—*x* of Fig. 3, and Fig. 7 is a detail vertical section through one side of the head of the bracket shown in Fig. 3, illustrating the thread formed by corrugating the sheet-metal.

The bracket provided by my invention is made entirely of metal, the general form thereof being substantially the same as that of the ordinary wooden bracket which it is intended to replace, and comprising a wedge-shaped body-portion, a tapering or conical neck-portion, and a cylindrical head-portion having an external thread on which ordinary insulators of glass or the like may be screwed.

The bracket shown in Figs. 1 and 2 is of cast metal, being hollow or cored out so that the head 1 is tubular, or circular in transverse section, the neck 2 at the upper end being of similar form but swelling out at the lower end to an approximately rectangular section, while the body-portion 3 is U-shaped in transverse section, the inner side and the lower end thereof being open, as shown. The inner edges of the sides of the body 3 are designed to fit either against the side of an ordinary wooden pole or against a flat wall-surface, and said edges are serrated to provide a series of pointed teeth 4 adapted to penetrate slightly the body on which the bracket is secured, to prevent twisting of the bracket relative to the support by lateral pulling of a wire connected with the head. In the outer side of the body 3 near the upper and lower ends thereof are holes through which spikes may be driven, as shown at A in Fig. 2, in attaching the bracket to a support. The edges 5 of the metal around said holes are turned slightly outward, so that the heads of the spikes will be spaced from the flat surface, thus enabling the insertion beneath the heads of the claws of a hammer B, as indicated by dotted lines in Fig. 2, for pulling out the spikes when the bracket is to be taken down from the support. The opening at the lower end of the body permits the insertion of a lever, wedge or like instrument for prying the bracket off the support, and this feature, together with the out-turned lips 5, enable the bracket to be taken down repeatedly without injury thereto. The thread for holding the insulator C upon the head 1 may be formed by means of a wire 6 extending helically about the head, the ends 7 of the wire being secured to the head by inserting them through holes therein, as shown. The wire-thread, not being integral with the body of the bracket, and not being rigidly attached thereto, is sufficiently yieldable to compensate the differences in the expansion and contraction of the bracket and insulator due to changes of temperature, and thus prevents breakage of the insulator from such cause.

The preferred form of the bracket is shown in Figs. 3, 6 and 7. Said bracket is made from sheet-metal, stamped and formed as shown, and differs from the before-described cast-metal bracket in several particulars. The outer part of the body 3 is semi-cylindrical in section, as shown in Fig. 6, instead of being rectangular and having the outer side flat. At the inner edges of the

body there are provided, in addition to the teeth 4, perforate laterally-extending lugs 8 through which nails or screws may be passed to assist in securing the body to the support, and to prevent the sides of the body from spreading apart or away from each other. At the inner side of the head and neck there is a narrow vertically extending slot 11 formed between the edges of that portion of the metal sheet from which these parts are made. At the base of the neck there may be provided at one side a tongue 9 which overlaps the other side and is secured thereto by a rivet or the like, said tongue and rivet serving to connect the adjacent edges of the sheet and prevent them spreading apart. As a further means of connecting the two sides at the shoulder or base of the neck, there is provided a rivet 10 which extends transversely between the sides, as shown. The thread for receiving the insulator on the head is preferably provided by corrugating the metal to form a helical ridge 12 on the outer surface thereof, as shown in detail in Fig. 7. The thread so formed, being integral with the metal head, might cause breakage of an insulator screwed tightly thereon, when the parts are expanded and contracted by changes of temperature, were it not that a slight compression of the head is permitted by the longitudinal slot 11, which compensates the expansion variation.

The sheet-metal type of the bracket may also be made with the body 3 rectangular in transverse section, as represented in Fig. 5. In said figure the thread for the insulator is indicated as formed by a helical wire 6, which may be used if desired, in the same manner as hereinbefore described in connection with the form of bracket shown in Figs. 1 and 2.

By omitting the head and neck-portion of the bracket, any of the described forms thereof will constitute a simple and durable pole-step, as will be apparent from Fig. 4.

Now, having described my invention, what I claim and desire to secure by Letters Patent is:

1. In a metal insulator-bracket, a body-portion U-shaped in transverse section, having serrated edges adapted to penetrate a support, and perforate laterally-extending lugs at said edges adapted to rest against the support.

2. A pole-bracket of sheet-metal, having a body-portion substantially U-shaped in transverse section and wedge-shaped in side elevation, the longitudinal edges being serrated to enter a support and prevent spreading of said edges and twisting of the bracket relatively to the support, there being perforate laterally-extending lugs at said edges for resting against the support and receiving attaching-members driven thereinto.

3. A metal pole-bracket having a hollow body-portion U-shaped in transverse section and open at the lower end and at one side adjoining a support, means for attaching the bracket to the support, and means at the support-engaging edges for preventing lateral spreading of said edges.

4. A metal pole-bracket having a hollow U-shaped body-portion whose edges are adapted to interengage with a support to prevent spreading of said edges and lateral twisting of the bracket upon the support, means for securing the bracket to the support, and means adapted for engagement by detaching-means to pry the bracket loose from its support.

5. A sheet-metal pole-bracket having a body-portion substantially U-shaped in transverse section and adapted to rest with its open side against a support, means for attaching the bracket to the side of a support, and a lateral connecting-member between the support-engaging edges to prevent spreading thereof.

LEWIS F. KEPPLER.