No. 882,095. PATENTED MAR. 17, 1908.

W. E. CALLANE.

WIRE TIE FOR INSULATORS.

APPLICATION FILED NOV. 19, 1906.

Fig. 1.

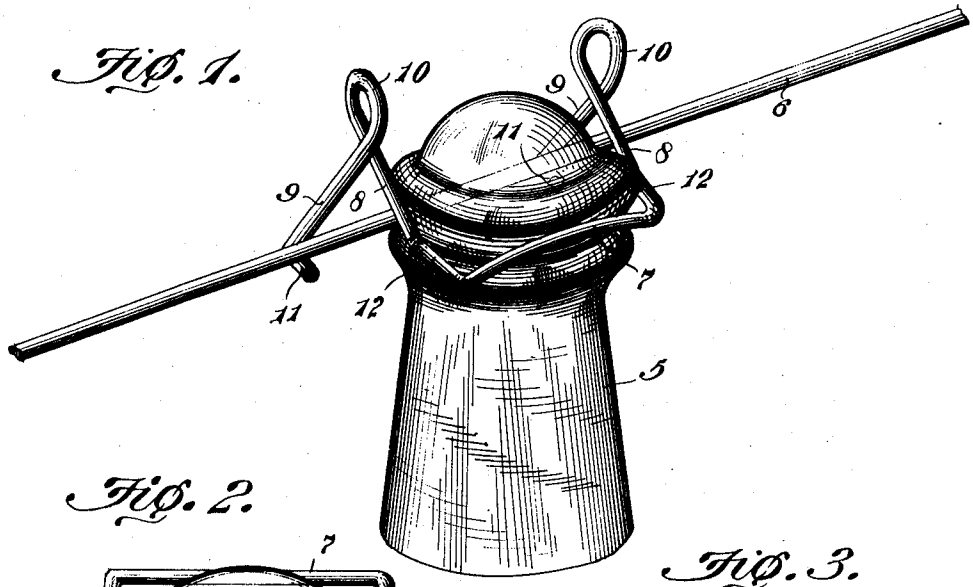


Fig. 2.

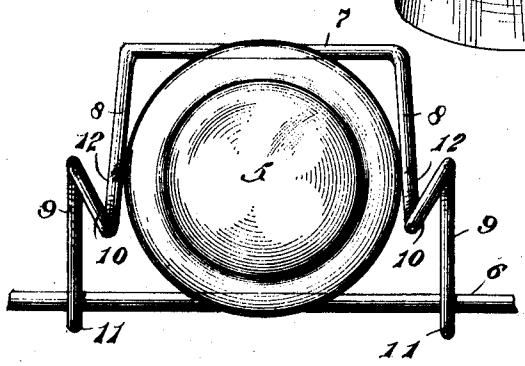


Fig. 3.

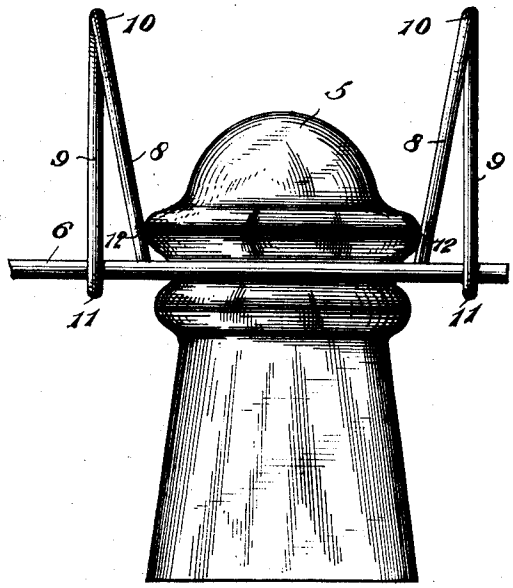
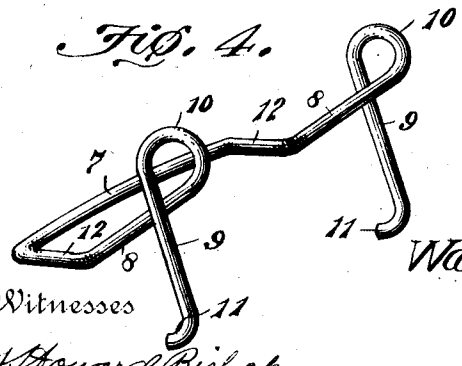


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

WALDO E. CALLANE, OF FLORA, INDIANA.

WIRE TIE FOR INSULATORS.

No. 882,095. Specification of Letters Patent. Patented March 17, 1908.

Application filed November 19, 1906. Serial No. 344,102.

To all whom it may concern:

Be it known that I, WALDO E. CALLANE, a citizen of the United States, residing at Flora, in the county of Carroll and State of Indiana, have invented a new and useful Wire Tie for Insulators, of which the following is a specification.

This invention relates to means for securing wires to insulators, and the primary object is to provide a novel structure, which can be cheaply manufactured, can be easily applied to an insulator, and to a wire, will effectively secure the latter to the former, will automatically take up slack, and allow for contraction of the wire, and will permit the taking up of the wire without the necessity of its being disengaged therefrom or from the insulator.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view showing the novel tie in operative position upon an insulator and wire. Fig. 2 is a top plan view of the same. Fig. 3 is an elevation of the structure. Fig. 4 is a detail perspective view of the tie detached from the insulator and wire.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, the insulator, which may be of any desired form or structure, is designated by the reference numeral 5, and the wire associated therewith, is designated 6. The tie device for securing the wire to the insulator, is preferably formed from a single piece of wire. It consists of an intermediate insulator engaging bar 7, which may be slightly bowed, and from the ends of which extend sets of integral angularly disposed arms 8 and 9, the arms of each set being connected by a coil or loop 10. The free ends of the free arms are provided with spaced wire engaging hooks 11. The portions of the arms 8, which are directly associated with the ends of the insulator engaging bar 7, are preferably offset, as shown at 12.

In using the device, the intermediate portion of the bar 7 is engaged upon the opposite side of the insulator to that engaged by the wire 6. The sets of arms embrace the upper end of said insulator and the hooks 11 are engaged over the wire on opposite sides of said insulator, as clearly shown in the drawings. Because of the spring connection between these hooks or wire engaging elements and the bar or insular engaging element, it will be evident that tension is applied to the wire, which tends to draw the same toward the bar. Thus in case of slack upon the wire, the hooks will move toward the bar and take up such slack, or in case the wire contracts as in cold weather, the spring connections allow the wire to straighten out. In case it is desired to tighten the wire when sufficient strain is applied thereto, the wire will slip through the hooks, and consequently the tightening action can be secured without the necessity of removing the tie either from the insulator or the wire.

It will be evident that the device can be cheaply manufactured, and experience has proven that it will effectively hold a wire in place upon an insulator.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. A tie of the character described, comprising an insulator engaging element, a wire engaging element located at one side of the same, and a spring connection between the elements disposed transversely of the insulator engaging element for urging said elements toward each other.

2. A tie of the character described, comprising an insulator engaging element, a wire engaging element, and a yielding connection between the elements for urging them toward each other, said connection comprising angularly disposed arms connected respectively to the elements.

3. A tie of the character described, comprising an insulator engaging element, a wire engaging element, and a yielding connection between the elements for urging them toward each other, said connection

comprising angularly disposed arms connected respectively to the elements and a coiled spring connecting the arms.

4. A tie of the character described, comprising an insulator engaging bar, a wire engaging hook, arms connected respectively to the bar and hook, and a spring connection between the arms for urging them toward each other.

5. A tie of the character described, comprising an insulator engaging element, spaced wire engaging elements located at one side of the insulator engaging element, and spaced yielding insulator embracing connections between the wire engaging element and the insulator elements that urge the former toward the latter, said connections extending from the same side of the insulator engaging element.

6. A tie of the character described, comprising an insulator engaging bar, spaced wire engaging hooks located at one side of the bar, and spaced yielding connections between the hooks and the ends of the bar that urge said hooks toward the bar, said connections being disposed transversely of the bar.

7. A tie of the character described, comprising an insulator engaging bar, spaced wire engaging hooks, and angularly disposed relatively yielding arms connecting each hook, and one end of the bar.

8. A tie of the character described, formed from a single piece of wire and comprising an intermediate insulator engaging bar, sets of angularly disposed arms extending from the ends of the bar, the arms of each set being connected by a looped portion, and the free terminals of the free arms being provided with wire engaging hooks.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WALDO E. CALLANE.

Witnesses:
L. V. MYER,
WM. R. COLVIN.