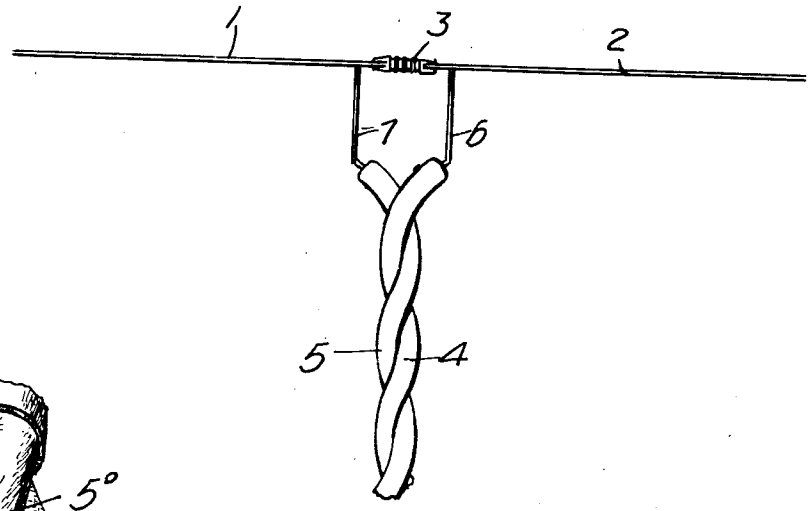
Aug. 17, 1937. K. C. BRIDGES 2,090,026

AERIAL LEAD FOR RADIO RECEPTION

Filed Dec. 26, 1935



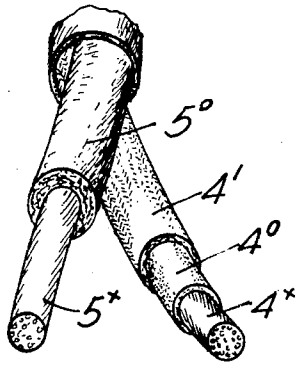


FIG 3



FIG. 2.

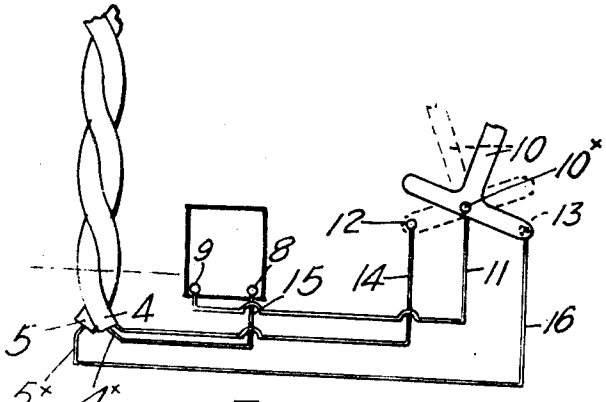


FIG. 1.

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AERIAL LEAD FOR RADIO RECEPTION

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Application December 26, 1935, Serial No. 56,158

4 Claims. (Cl. 250—33)

My invention relates to improvements in aerial leads for radio reception, and the object of the invention is to devise a simple and cheap construction which is adaptable for use alternately in both short and long wave reception and will be subject to a minimum amount of interference, and it consists essentially of the arrangement and construction of parts all as hereinafter more particularly explained.

Fig. 1 is a diagrammatic view showing the lead in connection between the aerial and the set.

Fig. 2 is an enlarged cross sectional view through the lead in wires.

Fig. 3 is an enlarged perspective detail showing a portion of the lead in wires partially stripped.

In the drawing like characters of reference indicate corresponding parts in the different views.

1 and 2 are two portions of an aerial separated by an insulator 3. The lead in comprises two members 4 and 5 which are twisted together. The member 4 is what is known as a shielded member, 4^x being the wire proper, 4^o an insulating cover and 4^1 the shield formed preferably of fine woven wire. The member 5 is formed by the wire proper 5^x and insulating covering 5^o which is of a diameter equal to the exterior diameter of the shielded wire 4^x. The wires proper 4^x and 5^x are also of the same diameter. One wire 4^x is connected to the aerial member 2 as indicated at 6 and the wire 5^x to the aerial member 1 as indicated at 7.

8 is the antenna post of the set and 9 the ground post. 10 is a double throw switch, the centre point 10^x of which is connected by a wire 11 to the ground post 9. 12 and 13 are contacts coacting with the switch arm 10. The contact 12 is connected by a wire 14 to the shield 4^1 of the wire 4^x. 15 is a wire connecting the antenna post 8 with the wire 4^x and 16 is a wire connecting the contact 13 with the wire 5^x.

When the switch is in the position shown, the device is used for short wave broadcasting, the circuit coming in from the wire 5^x, through the wire 16, contact 13 to the switch arm 10 and to the centre contact 10^x thereof and passing by a wire 11 to the ground post 9.

When it is desired to use the device for long wave, the switch arm 10 is thrown into the dotted position so as to engage the contact 12. In this case the circuit passes from the antenna 1, through the wire 4^x, wire 15 to the antenna post 8 of the set and through the set to ground, the shield 4^x being connected by the wire 14 to the contact 12 connecting the same through the switch arm and point 10^x and wire 11 to the ground post 9 of the set.

From this description it will be seen that I have devised a very simple construction which will enable a single lead in to be used alternately either for short or long wave reception and will be simple and cheap to manufacture.

What I claim as my invention is:—

1. In an aerial lead in, a lead in wire comprising two members twisted together, one of such members being shielded and the other unshielded.

2. In an aerial lead in, a lead in wire comprising two members twisted together, one of such members being shielded and the other member being formed by a single wire equal in diameter to the diameter of the shielded wire.

3. In an aerial lead in, a lead in wire comprising two members twisted together, one of such members being shielded and the other member being formed by a single wire equal in diameter to the diameter of the shielded wire, and a covering for the unshielded wire equal in diameter to the diameter of the shielded wire and its shield.

4. In an aerial lead in, a divided aerial, a twisted lead in wire, one member of which is shielded and connected to one member of the aerial and the other member unshielded connected to other member of the aerial, a double throw switch, the centre point of which is connected to the ground post of the set, a connection between the shielded wire and the antenna post of the set, a wire between the shield of the shielded member and one contact of the switch, and a wire connecting the unshielded member with the other contact of the switch.

KENNETH CHARLES BRIDGES.