Sept. 8, 1925. 1,553,244

C. F. JACOBS

ANTENNA SPREADER

Filed July 10, 1923

Fig. 1.

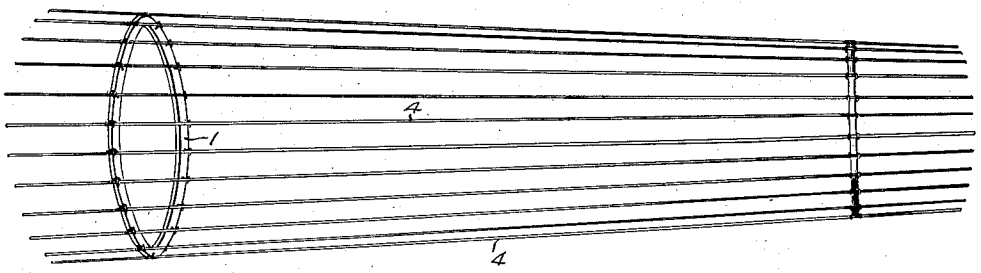


Fig. 2.

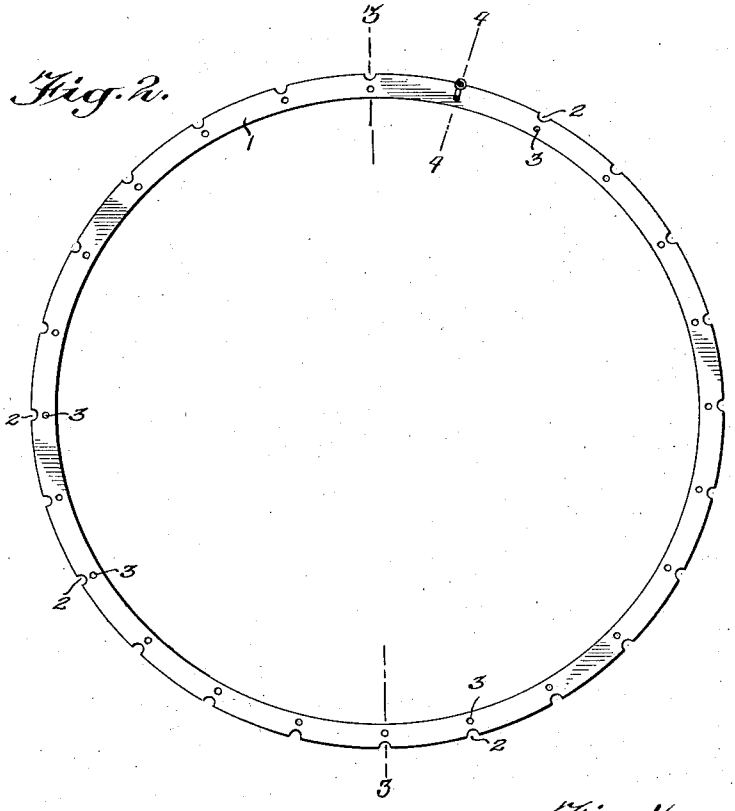


Fig. 3.

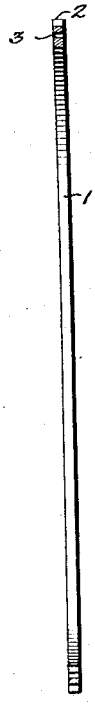
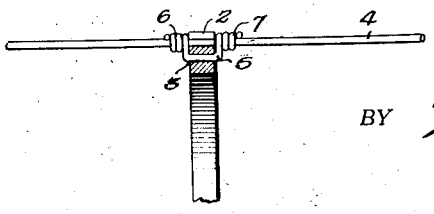


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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ANTENNA SPREADER.

Application filed July 10, 1923. Serial No. 650,706.

To all whom it may concern:

Be it known that I, CHARLES F. JACOBS, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Antenna Spreader, of which the following is a full, clear, and exact description.

This invention relates to a spreader for radio antennæ, and has for an object the provision of a simple and efficient antenna spreader which is very easily constructed and on which the antenna wires can be arranged in any desired combination.

Another object concerns the provision of means whereby the wires can be very easily applied to and removed from the spreader and yet very firmly fastened thereto when in place.

The invention is illustrated in the drawings, of which—

Figure 1 is a diagrammatic view of a pair of spreaders supporting a cage antenna;

Fig. 2 is a front elevation of the spreader;

Fig. 3 is a section taken on the line 3—3 of Fig. 2; and

Fig. 4 is a section taken on the line 4—4 of Fig. 2.

The form of the invention shown in the drawings is a preferred form, although it is understood that modifications in the construction and arrangement of the parts and in the character of the materials used may be adopted without departing from the spirit of the invention.

The preferred form of the invention as shown in the drawings comprises a ring 1, preferably of metal such as copper, brass, etc., of any desired shape and dimensions. This ring 1 is provided on its outer peripheral edge with a plurality of notches such as 2 beneath each of which, and extending through the body of the ring of the spreader, is formed a hole 3. The number of notches 2 provided is entirely at the option of the person constructing the spreader and depends upon the kind of an antenna he desires to construct, but preferably the spreader is provided with a larger number of slots than the number of wires he expects to use so that number of wires can be varied from one or two up to the maximum. A typical form of spreader would be one as illustrated in Fig. 2 having 24 notches, so that a 4, 6 or 8-wire cage antenna system could be readily obtained by the mere placing of the antenna wires into every sixth, fourth or third notch.

Each wire, such as 4, is laid in its respective slot 2 and then is tied thereto in a very simple and efficient manner by passing a tie wire 5 through the hole 3 and then wrapping the ends, such as 6 and 7, of the tie wire around the antenna wire on opposite sides of the spreader. This serves not only to hold the wire in the slot but also serves to hold the spreader in position along the wire. In order to prevent any current loss or corrosion, the ends 6 and 7 after being wrapped around wire 4 should be soldered.

It is, of course, observable that the number of antenna wires can be varied within quite a wide range and that the metallic spreaders, which may be used in greater or less number over a given length of antenna, add to the capacity of the antenna with the advantageous effects generally resultant therefrom. In order to remove the spreader it is merely necessary to unwrap the tie wire, whereupon the antenna wires can be lifted out of the slots and the spreader or ring 1 removed.

What I claim is:

1. An antenna spreader which comprises a metallic ring having a plurality of peripheral slots formed therein and having an aperture through the body portion of the ring beneath each slot whereby tie wires for the antenna wires lying in the slots can be passed therethrough and fastened to the antenna wire.

2. The combination of an antenna spreader ring having a slot therein and having an aperture beneath said slot, an antenna wire lying in said slot, and a tie wire passing through said aperture, the ends of the tie wire being wrapped around the antenna wire on opposite sides of the ring.

CHARLES F. JACOBS.