Feb. 16, 1932. A. L. NEIL 1,845,512

RADIO AERIAL

Filed Jan. 28, 1927

Fig. 1.

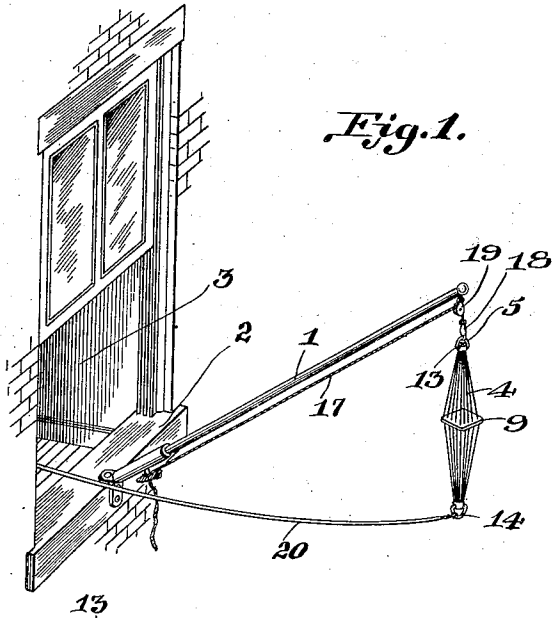


Fig. 2.

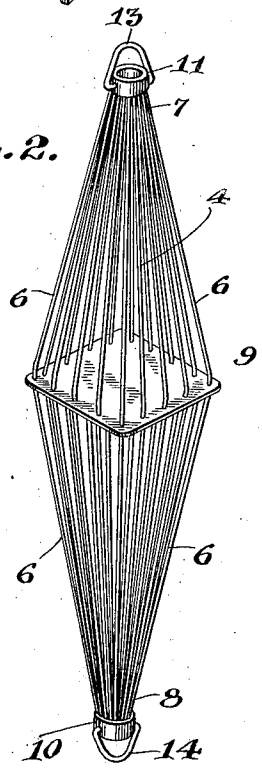
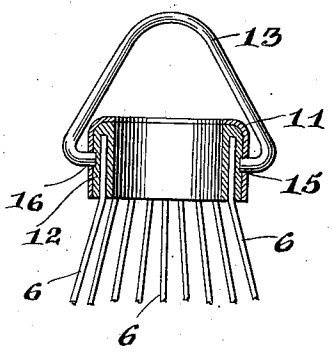


Fig. 3.



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UNITED STATES PATENT OFFICE

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RADIO AERIAL

Application filed January 28, 1927. Serial No. 164,235.

This invention relates to improvements in radio aerials, particularly in convenient means for supporting the antenna used in connection with radio apparatus.

An object of this invention is to provide a cage type of antenna which may be easily supported or hung from a window flag pole or other extension, and suitably connected to the radio device within the room or building, thereby providing an efficient portable antenna for a radio aerial which may be conveniently set up or supported in a freely swinging manner as, for instance, on an ordinary flag pole fixed to a window base.

Other objects of this invention will appear from the following detailed description of the device and as disclosed in the single sheet of drawings which is herewith made a part of this application.

In the drawings:

Figure 1 illustrates a perspective view of the radio aerial disclosing the antenna in supported and operative relationship to the window flag pole.

Figure 2 illustrates a perspective view of a cage-formed antenna which may be considered as one modification of this invention.

Figure 3 represents a vertical sectional view of one end of the cage antenna to an enlarged scale disclosing a method for assembling the antenna wire strands.

This invention provides an improved radio aerial in which numeral 1 designates a supporting element conveniently consisting of a flag pole or other suitable device extending from a window ledge 2 of a room or building 3 in which a radio apparatus is located.

It is preferred in this invention to suitably hand or support the aerial antenna 4 from the outer end of the flag pole 1 as at 5 in such a manner that it may be easily released and pulled back through the window when desired. The antenna device 4 may be made in any suitable shape such as disclosed clearly in Figure 2 wherein the wire strands 6 are arranged in such a manner as to taper toward each end 7 and 8, the strands 6 extending through suitable openings in a square supporting piece 9 approximately located at the midway point between the ends 7 and 8, thereby forming the strands 6 into a square cage-like shape at the center portion of the antenna 4. The ends 7 and 8 of the wire strands 6 are preferably assembled in proper position within cap elements 10 and 11, and held firmly in position therein by means of a suitable device 12 such as solder or otherwise. Freely moving, connecting or hanging elements 13 and 14 are pivotally connected to the cap portions 10 and 11 through suitable openings 15 and 16 therein.

In operation, this invention provides a radio aerial which may be easily adjusted in a freely receptive position outside of a window of a room in which a radio instrument may be located. The antenna 4 may be brought into position at the outer end of the flag pole 1 by merely attaching one of the hanging elements 13 or 14 to one end of the flag pole rope 17 and then pulling the antenna 4 in its freely swinging position to the outer end of the pole 1, it being understood that the antenna is properly insulated as at 18 from the pole and pulley elements or the like 19. The other end 14 of the antenna 4 is suitably brought into circuit, by means of wires 20, with the radio apparatus located within the building.

It is to be understood that alterations and substitutions may be made in the above disclosure within the scope of the claim without affecting the merits of this invention.

What I claim as:—

A hanging aerial comprising a central plate having equally spaced apertures around its edges, wires threaded through the apertures and projecting equal distances on both sides of the plate, the wires converging at both ends, sheet metal bands surrounding

the ends of the wires, the outer edges of said bands being turned in to form flanges, linings of solder within the bands in contact with the inner surfaces thereof and with the inner surfaces of the flanges, the ends of the wires being equally spaced and embedded within the solder, and bails the ends of which extend through openings in opposite sides of the bands into contact with the solder.

In testimony whereof I affix my signature.

ARTHUR LIVINGSTON NEIL.