March 17, 1925. 1,530,448

V. M. WEISZ

ANTENNA SUPPORT

Filed Oct. 11, 1923 2 Sheets-Sheet 1

FIG. 1.

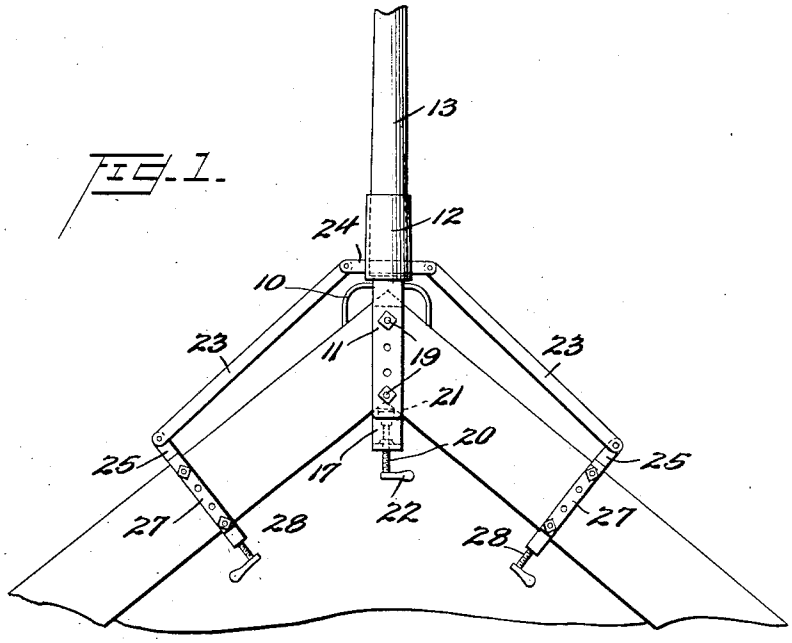


FIG. 2.

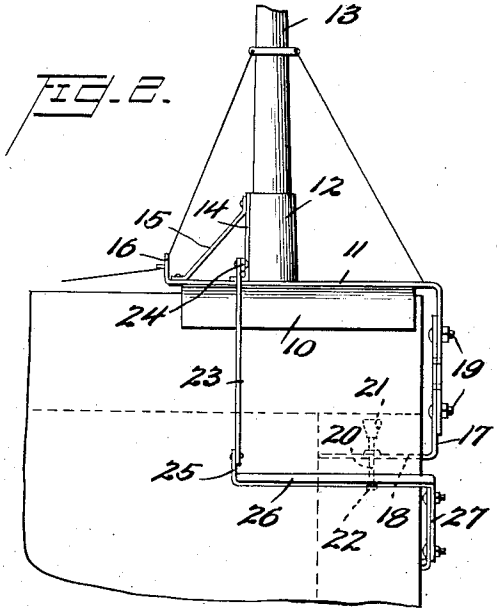
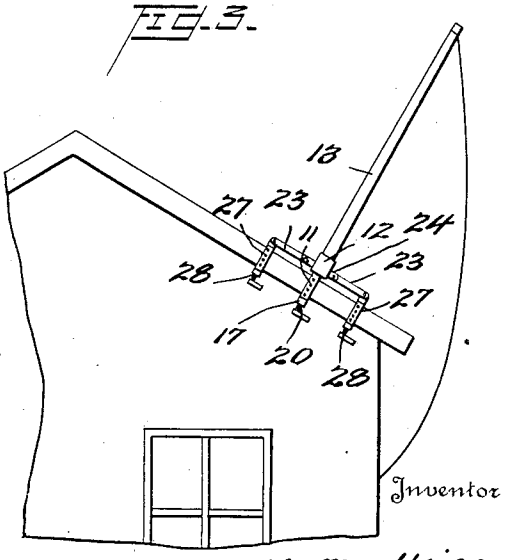


FIG. 3.



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FIG. 4.

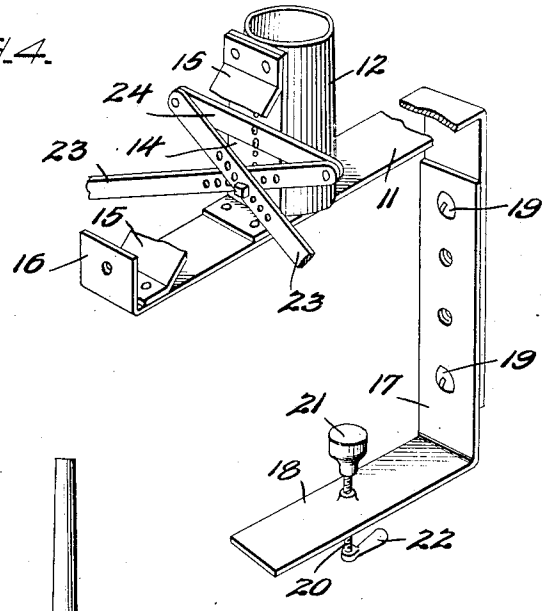


FIG. 5.

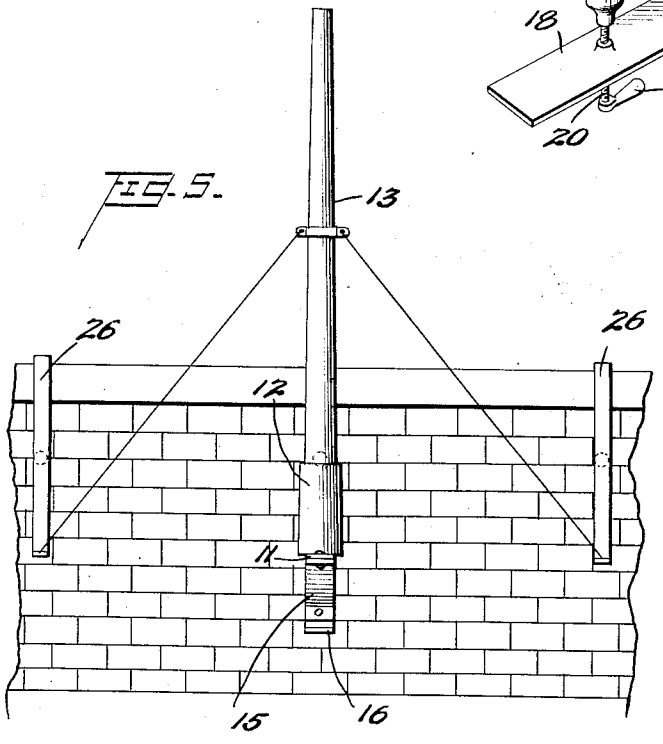
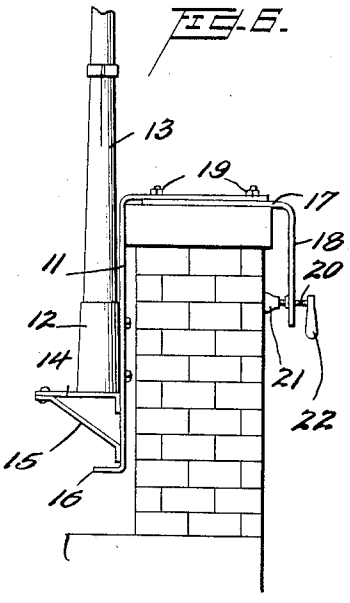


FIG. 6.



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UNITED STATES PATENT OFFICE.

VICTOR M. WEISZ, OF SPRINGFIELD, ILLINOIS.

ANTENNA SUPPORT.

Application filed October 11, 1923. Serial No. 667,973.

To all whom it may concern:

Be it known that I, VICTOR M. WEISZ, a a citizen of the United States, and a resident of Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Antenna Supports, of which the following is a specification.

My invention relates to apparatus for supporting poles, masts and the like on dwelling houses or other buildings, and has particular reference to apparatus of this character adapted for use in radio installations for supporting the receiving antenna on the roofs of dwelling houses.

The object of this invention, in general, is to provide an apparatus for supporting antenna carrying masts which is of simple and rugged construction, highly efficient in use and easy to manufacture, and which can be readily installed without the use of screws, nails or fastening means of like character. A more particular object is to provide an apparatus of this character which is adjustable to suit roofs of different forms and dimensions and to render it capable of being attached at any desired point on a roof or on a vertical wall. Other and more specific objects and advantages of the invention will become apparent hereinafter.

Referring to the accompanying drawings:

Fig. 1 is a front elevation of an apparatus constructed in accordance with my invention, showing said apparatus attached to the gable of a roof.

Fig. 2 is a side elevation of the apparatus shown in Fig. 1.

Fig. 3 illustrates the apparatus attached to the roof at a point adjacent to the eaves.

Fig. 4 is a perspective view showing a modified construction.

Figs. 5 and 6 are rear and side elevations, respectively, of the apparatus shown in Figs. 1 and 2, illustrating the adaptability of said apparatus to vertical wall supports.

Referring more particularly to Figs. 1 and 2, the numeral 10 designates a plate adapted to rest along its center line on the ridge of a roof and having down-turned side portions adapted to rest along the roof at the sides of the ridge. Bolted or otherwise secured to the top of plate 10 is a bar 11, upon which is mounted a socket 12 supporting the foot of a mast 13. Socket 12 may be detachably secured to bar 11 by means of a vertical plate 14, which is screwed or otherwise detachably fastened to the socket and which has a right angularly extending foot suitably fastened to bar 11. Plate 14 may be braced by an oblique member 15 which is secured at its ends to bar 11 and plate 14, respectively.

The inner end of bar 11 may be turned upwardly as at 16 and provided with an aperture for the attachment of guy wires. The outer end of bar 11 is turned downwardly at substantially a right angle and has adjustably fastened in overlapping relation thereto a bar 17 which, in turn, is bent at a right angle to provide a portion 18 underlying the gable. Any suitable means may be provided for adjustably connecting bars 11 and 17. I have shown for this purpose a number of holes in the overlapping portions of said bars and a pair of bolts 19 adapted to pass through said holes and having nuts adapted to clamp said bars in any desired position. A threaded bolt 20 is screwed in a threaded hole in the underlying portion 18, and is provided with an enlarged head 21 adapted to engage the underside of the gable and provided at its other end with a handle 22.

Socket 12 is braced laterally by means of links 23, which are pivoted at their upper ends to a transverse bar 24 detachably secured to plate 14, and which are pivoted at their lower or outer ends to the short upturned ends 25 of a pair of bars 26. Bars 26 have their outer portions bent at substantially a right angle and are overlapped by and adjustably clamped to bars 27, which are also bent at a right angle so as to hook under the eaves of the gable. Bars 27 are provided with clamping screws 28 having enlarged clamping heads and manipulating handles.

It will be clear from the above description that the apparatus can be installed very easily and quickly and can be dismounted with equal facility. It will be observed that the adjustability of the roof clamps adapts the apparatus to roofs of widely varying dimensions, while the flexible connections of the side clamps effects automatic adjustment to gables of different angles.

The apparatus can not only be mounted on the ridge of a roof but it can be applied at any point on the gables or along the eaves, as will be clear from an inspection of Fig. 3. In the position here shown

the antenna is supported over the side of the building and the leading in connections can be passed through a window. This position of the antenna is advantageous also where the user or owner of the building objects to having the antenna directly over the roof through fear of lightning.

Figs. 5 and 6 illustrate the apparatus supported on a vertical wall. In a situation of this kind the elements 10, 23 and 24 are not required. The overlapping portions of plates 11 and 17 are supported on top of the wall, and the head 21 of the clamping screw bears against the front face of the wall. Socket 12 is secured parallel to plate 11 and rests on plate 14. The side clamp plates 26 and 27 are clamped to the wall on each side of the central clamp and provides means for securing the lower ends of guy wires.

Fig. 4 illustrates a slightly modified construction. In this construction the links 23 are crossed at the socket 12 and secured at their ends to the ends of bar 24. To provide for adjusting the angular relation of links 23, they may be provided adjacent their crossing point with a plurality of holes through selected pairs of which a bolt or other securing means may pass and engage threaded holes in plate 14, the latter being also provided with a plurality of vertically aligned threaded holes so as to provide for attaching the links 23 at different vertical positions thereon and also to provide for attachment of bar 24 at different vertical positions. In this construction the links 23 constitute a rigid brace for the socket, preventing any side sway thereof. It is therefore possible with this construction to dispense with the ridge plate 10.

Obviously various changes may be made in the constructions described without departing substantially from the idea of means disclosed.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. Apparatus for supporting a mast, comprising a bar consisting of an elongated portion adapted to rest on the top of a roof and a substantially hook shaped end adapted to hook over a projecting portion of the roof, a clamping screw mounted in the hooked end of said bar, a socket secured to said bar, a pair of arms connected to said socket and extending in a plane substantially at right angles to said bar, said arms being adjustable in said plane to vary their angular relation, and roof clamps secured to the outer ends of said arms.

2. A mast support, comprising a bar consisting of an elongated portion adapted to rest on a roof and a substantially hook shaped end adapted to hook over a projecting portion of the roof, a clamping screw mounted in the hooked end of said bar adapted to bear at its end against the roof to clamp said bar thereto, a socket mounted on said bar, a pair of arms pivotally mounted on said bar and extending in a plane substantially at right angles thereto, and means for clamping the outer ends of said arms to the roof.

3. A mast support, comprising an elongated bar, a plate detachably secured to the under side of said bar adapted to rest along its center line on the ridge of a roof and having downturned side portions adapted to rest along the roof at each side of said ridge, means for clamping said bar to the roof, a socket mounted on said bar, a pair of links pivotally connected at their inner ends to said socket and extending in a plane substantially at right angles to said bar, a pair of rods pivotally connected to the outer ends of said links, said rods having hooked ends adapted to hook under a projecting portion of the roof, and clamping screws in the hooked ends of said rods.

4. A mast support, comprising an elongated bar having a hooked end, means for clamping said hooked end to the projecting portion of a roof, a plate secured to the underside of said bar adapted to rest on the ridge of the roof and having downturned portions adapted to rest along the roof at each side of the ridge, a socket secured to said bar, a pair of side clamps adapted to be clamped to projecting portions of the roof at each side of said bar and connections between said side clamps and said socket.

5. A mast support for radio installations comprising a bar adapted to rest on the top of a roof and having a hook adapted to hook over a projecting portion of the roof, a clamping screw in the hook, means for supporting a pole on said bar, a pair of arms pivotally supported by said bar and extending on opposite sides thereof at an angle thereto, and roof clamps secured to the outer ends of said arms.

6. A mast support for radio installations and the like comprising, in combination, a bar adapted to rest on the top of a roof, an adjustable hook rigid with said bar adapted to hook over a projecting portion of the roof, a clamping screw in the hook, means for supporting a pole on said bar, a pair of arms pivotally supported by said bar and extending on opposite sides thereof, rods pivoted to the outer ends of said arms and extending substantially parallel to said bar, and adjustable hooks rigid with the outer ends of said arms.

In testimony whereof I hereunto affix my signature.

VICTOR M. WEISZ.