Aug. 22, 1933. R. G. FLOR 1,924,033

AERIAL SUPPORT

Filed Feb. 7, 1933

Fig. 1.

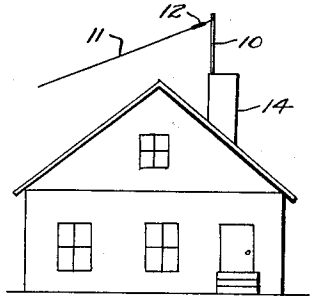


Fig. 5.

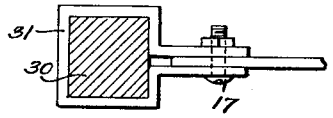


Fig. 2.

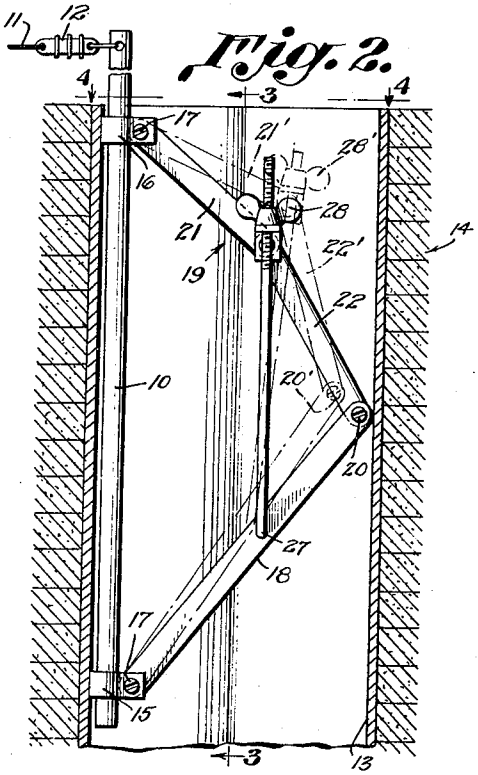


Fig. 3.

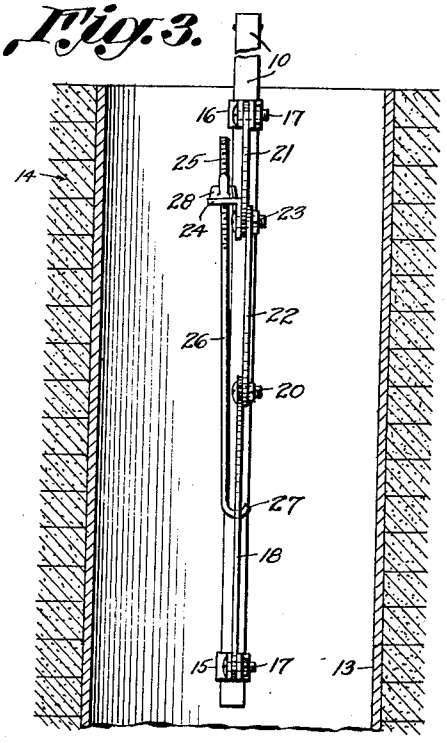


Fig. 4.

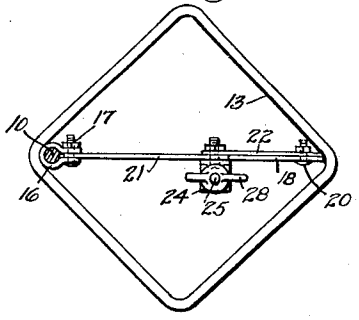
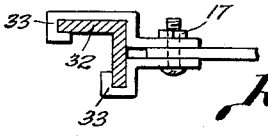


Fig. 6.



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1,924,033

AERIAL SUPPORT

Robert G. Flor, Brooklyn, N. Y.

Application February 7, 1933. Serial No. 655,655

4 Claims. (Cl. 189—31)

This invention relates to an aerial support and has for an object to provide an improved aerial support which is to be placed in the top of the chimney flue without necessitating any hole in the mason work of the chimney.

A further object of this invention is to provide an aerial support which may be quickly and easily attached and detached to the inside of the chimney flue thereby making the placing of an aerial on the roof of a home, apartment or other building a simple and easy proposition and cutting down the insulation work to a minimum.

A further advantage of the use of the aerial support constituting this invention is in houses or apartments having more than a single family and having an individual chimney for each family whereby each tenant may set up his own aerial support into his own chimney flue, thereby eliminating the necessity or the temptation for the other tenant to make use of the same aerial support when the original installer is unable to positively identify his aerial as his own work. With this invention by placing his own aerial in his own chimney flue, he positively identifies the same and avoids the objection of having other tenants place their aerials on his support with the consequent detriment to his radio reception.

With the foregoing and other objects in view, as will hereinafter become apparent, this invention comprises the constructions, combinations and arrangements of parts, hereinafter set forth, disclosed and shown on the accompanying drawing. In this drawing,

Figure 1 is an elevation view showing this invention applied to a house chimney flue.

Figure 2 is a vertical section through the chimney clearly showing the arrangement of the braces therein.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a sectional view taken on the line 4—4 of Figure 2.

Figure 5 is a modification of the invention showing a square pole and square bracket.

Figure 6 is a modification of the invention showing a pole of an L shape with brackets.

There is shown at 10 an aerial mast which is supported in accordance with this invention for supporting the aerial 11, being connected thereto by the insulator 12. The aerial mast 10 is secured within the flue pipe 13 of the chimney 14 without making any holes in the flue pipe or mason work of the chimney. A lower clamp 15 and an upper clamp 16 are each secured about the aerial mast 10 by means of bolts and nuts 17, the bolts 17 also serving for attaching the legs 18 and 19 of this support thereto, the legs 18 and 19 being bolted together as at 20. The leg 19 is in turn composed of an upper arm 21 and a lower arm 22 pivotally secured together by the bolt and nut 23. The bolt 23 also serves as a securing means for the flanged washer 24 through which passes the threaded end 25 of a tie rod 26, the other end of the tie rod 26 being pivotally connected to about the center of the lower leg 18 by having its end 27 turned through an appropriately placed aperture in the leg 18. A wing nut 28, placed on the threaded end 25 of the tie rod 26, serves to cause the two arms 21 and 22 of leg 19 to approach an angle of 180 degrees to each other as the wing nut is tightened down on the tie rod 26.

To install this support in the flue pipe 13 of the chimney 14 the wing nut 28 is unthreaded until the arms 21 and 22 are at considerably less than 180 degrees to each other as shown at 21′ and 22′, and the bolt 20 is moved to the position 20′ causing the distance between the opposite sides of the aerial mast 10 and the outside of the bolt 20′ to be less than the width of the flue pipe 13. When in this position, the mast and the attached leg 18 and 19 are placed within the flue pipe 13. The wing nut 28 is then tightened down from the position 28′ causing the arms 21 and 22 of leg 19 to approach but not reach an angle of 180 degrees and causing the pivotal connection 20 of the legs 18 and 19 to abut against the opposite sides of the flue pipe 13 while the back of the clamps 15 and 16 about the aerial mast 10 are pressed against the first side of the flue pipe 13. As will be observed, in this tightened position the legs 18 and 19 and the mast 10 substantially form a triangle with one point placed against one side of the chimney flue and the other two points placed against the opposite side of the chimney flue, thereby serving to securely hold the aerial mast 10 in the desired position. Although the aerial mast 10 has been shown in Figures 1 to 4 as being a solid, round element, it is obvious that the aerial mast may be of any desired cross section, but in Figure 5 an aerial mast 30 has been shown that is square or rectangular in cross section whereby clamps 31 are provided of a corresponding outline to be secured by the bolt 17 to the leg of this support. In Figure 6 the aerial mast is shown at 32 as being angular or L-shaped in cross section in which case the clamp 33 may be made into complementary pieces for being secured by the bolt and nut 17 to the legs 18 and

19, it being obvious of course that a clamp as shown in 31 might equally be used with an aerial mast 32 which is L-shaped in cross section.

The novel features and the operation of this device will be apparent from the foregoing description. While the device has been shown and the structure described in detail, it is obvious that this is not to be considered limited to the exact form disclosed, and that changes may be made therein within the scope of what is claimed without departing from the spirit of the invention.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. A radio aerial support including a mast and a holder for said mast, said holder consisting of a pair of legs pivotally clamped to said mast and to each other, one of said legs comprising a pair of arms pivoted to each other at an angle of less than 180 degrees and means securing the pivotal point of said arm to said other leg thus causing the angle between said pivoted arms to approach 180 degrees and so causing the distance between the pivotal point of said leg and said mast to become greater whereby when said support is placed in a pipe, said mast will be held against one side of said pipe while said pivotal connection betwen said legs will be braced against the opposite side of said pipe.

2. A radio aerial support including a mast and a holder for said mast, said holder consisting of a pair of legs pivotally clamped to said mast and to each other, one of said legs comprising a pair of arms pivoted to each other at an angle of less than 180 degrees and means securing the pivotal point of said arm to said other leg, thus causing the angle between said pivoted arms to approach 180 degrees and so causing the distance between the pivotal point of said leg and said mast to become greater whereby when said support is placed in a pipe, said mast will be held against one side of said pipe while said pivotal connection between said legs will be braced against the oposite side of said pipe, said means for securing the pivotal point of said arm to said other leg comprising a tie rod pivotally connected to said other leg, a flanged washer pivotally secured to said pivoted point, said tie rod passing through said flanged washer, and a nut threaded on the end of said tie rod to bear against said flange washer.

3. A radio aerial support adapted to be secured within a pipe comprising an aerial mast and a pair of legs pivotally clamped to said mast and to each other, one of said legs comprising a pair of arms pivoted to each other at considerably less than 180 degrees, and means secured to said other leg for causing said arms to approach an angle of 180 degrees and thereby causing the pivotal connection between said legs to increase the distance from the aerial mast.

4. A mast support for securing a mast within a pipe comprising a pair of clamps adapted to be secured to said mast, a pair of braces hinged to said clamps and to each other, one of said braces comprising a pair of arms hinged to each other at an angle, and means for causing the angle between said arms to approach a straight angle to thereby extend the hinged connection between said braces.

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