March 22, 1960 H. P. ROSENWINKEL 2,929,593

REVOLVING ANTENNA SUPPORT

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Fig. 1

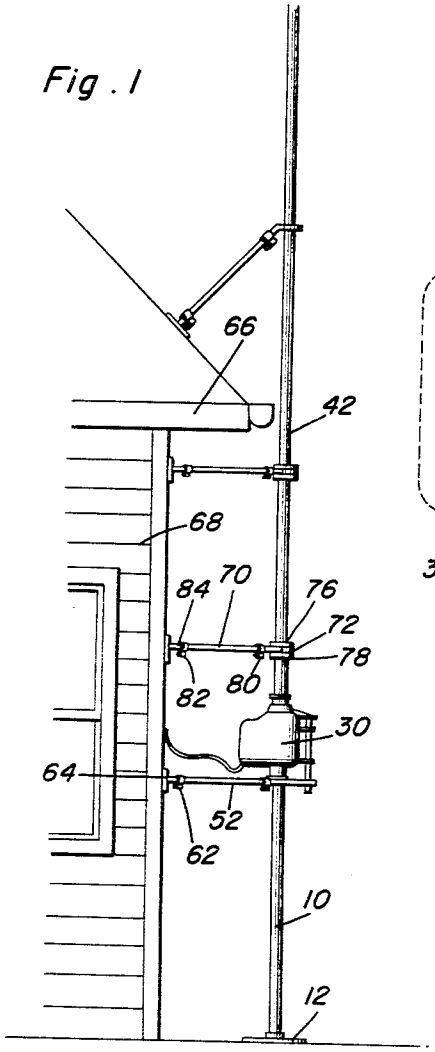
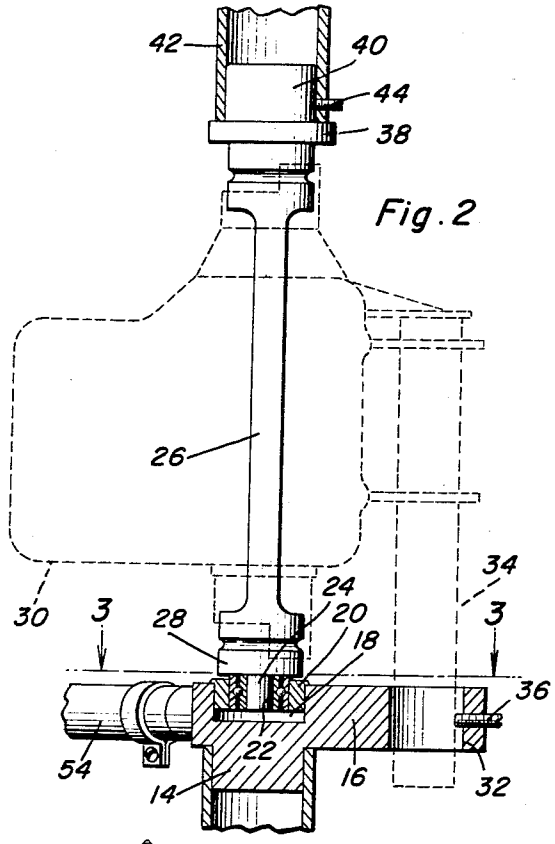


Fig. 2



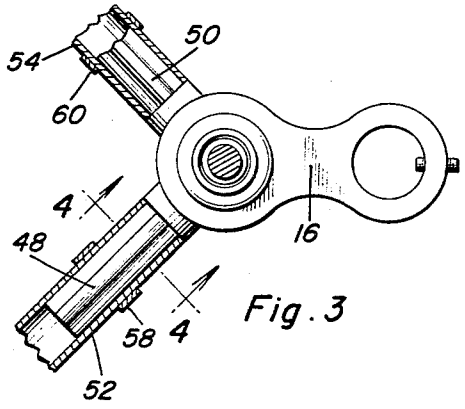


Fig. 3

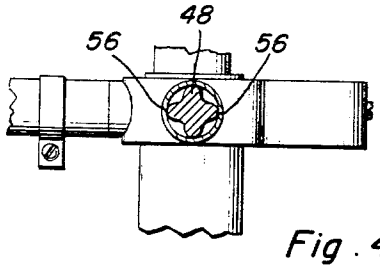


Fig. 4

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REVOLVING ANTENNA SUPPORT

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3 Claims. (Cl. 248—45)

This invention relates to a new concept in rotating antenna construction and more particularly to rotating means for antenna masts that is mounted on a base rising alongside a house or other building which base is affixed to the ground.

The primary object of the present invention resides in the provision of a novel revolving antenna construction which is so arranged that the motor for revolving the mast does not add its weight to the mast and which construction is so arranged that the motor is at a convenient height for service and repair.

The construction of this invention features the utilization of a novel bearing bracket which not only serves to support the shaft rotated by the motor, which shaft carries the antenna mast but also serves to rigidify the entire construction by means of attachment of the bearing bracket to a building.

Utilized in the invention are conventional electrically actuated mast rotating motors or manually operated motors for rotating an antenna mast. Since the tubular base utilizing the invention supports the motor at a convenient height above the ground, it may be readily and conveniently serviced without requiring that a repairman climb the roof of a building having a television set or the like therein utilizing a signal from the revolving antenna.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this revolving antenna mast, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a side elevational view of the revolving antenna construction comprising the present invention;

Figure 2 is an enlarged sectional detail view illustrating in particular the construction of the bearing bracket and a shaft supported thereby;

Figure 3 is a horizontal sectional view as taken along the plane of line 3—3 of Figure 2; and

Figure 4 is a sectional detail view as taken along the plane of line 4—4 in Figure 3 illustrating the manner in which the braces are secured to the projections of the bearing bracket.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral 10 generally designates a tubular base having a suitable mounting 12 for supporting the tubular base. Obviously, the footing or support 12 may be secured directly to the ground if such is rock or if there is a concrete footing. Alternatively, if the ground is soft dirt, a suitable length of pipe may be driven into the earth and the base 12 attached thereto at the upper end of such length of pipe.

Seated in the tubular base 10 is a projection 14 of a bearing bracket 16. The bearing bracket 16 is recessed as at 18 for reception of a bearing 20 which bearing has an opening 22 for reception of a projecting portion 24 of a shaft 26. The projecting portion 24 and the collar 28

on the shaft cooperate to journal the shaft 26 in the bearing bracket 16 by means of the bearing 20. Secured about the shaft 26 is a conventional antenna rotor or motor 30.

The bearing bracket 16 is provided with an aperture 32 therethrough for reception of a rod 34 engaged by the rotor 30 which rod is lockingly held in place in an adjustable manner by means of a setscrew 36. The rod 34 provides means for positioning and holding the rotor 30 in a manner so that it may rotate the shaft 26 without turning itself.

The shaft 26 is provided with a collar 38 spaced from the upper projecting end 40 thereof and the tubular mast 42 is adapted to be positioned so as to rest on the collar 38 with the end of the mast 42 embracing the projecting portion 40 and with a setscrew 44 lockingly holding the mast 42 in position.

In order to rigidify and brace the structure, the bearing bracket 16 is provided with a pair of diverging projections 48 and 50 which as can be best seen in Figure 4 are cruciform in cross-section. Tubular braces 52 and 54 having their ends split as at 56 are received over the projections 48 and 50 and clamps 58 and 60 are provided for clampingly holding the split ends of the tubular braces on the projections. The other ends of the tubular braces 52 and 54 are clampingly held by means of clamps 62 on brackets 64 affixed to a building or other suitable supporting structure. Obviously, the length of the tubular braces 52 and 54 will be dependent upon the amount of overhang of the roof 66 of the building 68 from which the antenna mast 42 is spaced. Other tubular braces as at 70 are utilized and these tubular braces are clampingly held to brackets 72 on the mast 42 by adjustable collars 76 and 78 adjustably held in place by suitable set screws. Clamps 80 and 82 are utilized to hold the tubular braces on projections affixed to the bracket 72 and to brackets 84 affixed to the house. Affixed to the building and spaced along the sides and roof thereof as can be best seen in Figure 1, are a number of braces and supporting brackets similar to those previously described.

In use, the motor 30 of the rotor can be operated in any conventional manner. It is noted that the entire device may be more easily serviced due to the fact that the rotor, which is the moving device most likely to break-down, can be readily serviced since it is held at approximately waist or chest height for ease of maintenance.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In a support for a revolving antenna, a base, a bearing bracket supported by said base, a shaft journalled in said bearing bracket, a motor for driving said shaft and engaging said shaft, means for supporting and holding said motor in position relative to said bearing bracket and including a rod secured to said motor, said bearing bracket having an aperture therein, said rod extending into said aperture, and means adjustably securing said rod to said bearing bracket.

2. In a support for revolving antenna, a base, a bearing bracket supported by said base, a shaft journalled in said bearing bracket, a motor driving said shaft engaging said shaft, means for supporting and holding said motor in position relative to said bearing bracket and including a rod secured to said motor, said bearing brack-

et having an aperture laterally offset from said shaft, said rod extending into said aperture means adjustably securing said rod to said bearing bracket, said bracket having a pair of divergent projections, and braces clampingly secured to said projections for supporting said bracket in spaced relationship to a building.

3. In a support for a revolving antenna, a base tube, a bearing bracket supported by said tube, a shaft journalled in said bearing bracket and adapted to support an antenna mast, a motor driving said shaft engaging said shaft, means for supporting and holding said motor in position relative to said bearing bracket and including a rod secured to said motor, said bearing bracket having an aperture laterally offset from said shaft, said rod extending into said aperture means adjustably securing said

rod in the aperture of said bearing bracket, said bracket having a pair of divergent projections, braces clampingly secured to said projections for supporting said bearing bracket in spaced relationship to a building, said braces being tubes having split ends, said projections being cruciform in cross section, said split ends of said tubes being received over said projections, and clamps clampingly securing said split ends of said tubes on said projections.

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