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J. T. DONNELLY
TELEVISION ANTENNA
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Fig. 1.

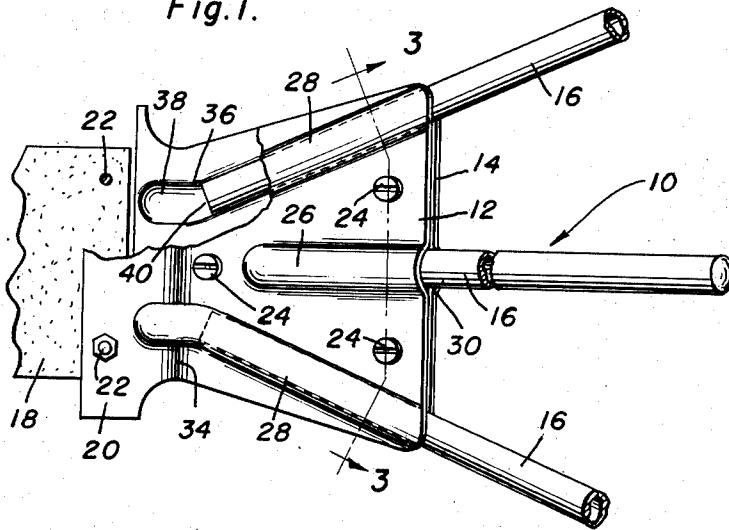


Fig. 2.

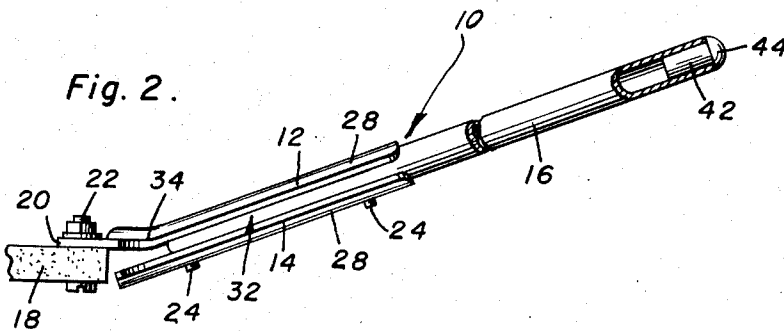
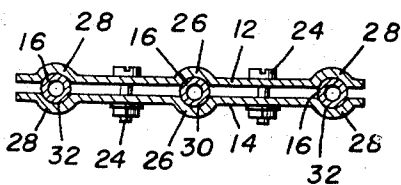


Fig. 3.



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TELEVISION ANTENNA

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1 Claim. (Cl. 248-39)

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This invention relates to new and useful improvements and structural refinements in television antennae, and the principal object of the invention is to provide a structurally dependable connection between the signal receiving rods and their supporting plates.

As is well known, conventional television antennae usually consist of a set of tubular rods, functioning as signal receivers, the same having free outer ends while their inner end portions are clamped between pairs of juxtaposed plates, each pair of plates being provided with grooves defining tubular sockets for the reception of the rods. The plates, in turn, are provided with angulated extensions secured to a support, and since antennae of this type are usually mounted out doors and are therefore subjected to strong winds, the rod clamping plates frequently become broken in the angulated portions thereof adjacent the mounting extension.

The primary feature of the invention, therefore, resides in the structural arrangement of the plates whereby the possibility of such breakage is substantially minimized if not completely eliminated.

Another feature of the invention resides in the provision of means for restricting the extent to which the signal receiving rods may be inserted between the clamping plates, so that possible inward sliding or shifting of the rods is eliminated.

A still further feature of the invention lies in the provision of means for closing the outer ends of the tubular rods so as to exclude weather from the interior thereof and to prevent the same from "whistling" in the presence of high wind.

Some of the advantages of the invention lie in its simplicity of construction and in its adaptability to economical manufacture.

With the above more important objects and features in view and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially in the construction and arrangement of parts as shown in the accompanying drawings, in which:

Figure 1 is a fragmentary side elevational view of the invention, the same being partially broken away so as to reveal its construction;

Figure 2 is a fragmentary edge view of the subject shown in Figure 1; and

Figure 3 is a cross-sectional detail, taken substantially in the plane of the line 3-3 in Figure 1.

Like characters of reference are employed to

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designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the invention is embodied in a television antenna, designated generally by the reference character 10, the same including a pair of juxtaposed clamping plates 12, 14 carrying a set of outwardly divergent, signal receiving rods or tubes 16 and mounted upon a suitable support 18, as will be presently described.

This mounting is effected by providing the inner end of one of the plates (12) with an angulated extension 20 which is secured to the support 18 by a plurality of screws 22, it being noted that the plates 12, 14 themselves are secured together by additional screws 24 which also serve to clamp the rods 16 in position between the plates.

The clamping plates 12, 14 are provided with a set of convexo-concave ribs 26, 28 which afford, in the opposing surfaces of the plates, pairs of registering grooves defining tubular sockets 30, 32 for the reception of the inner end portions of the signal receiving rods 16, as will be clearly

apparent. The primary feature of the invention resides in the extension of the socket forming grooves in the plate 12 so that the ribs 28 extend beyond the angulation 34 onto the plate extension 20, so that the angulated region of the plate is substantially reinforced against bending and possible breakage when the antenna is exposed to high winds.

Another feature of the invention lies in angulating the socket forming grooves intermediate the ends thereof, as at 36 (see Figure 1), so that the sockets 32 afford straight outer regions and angularly offset inner regions, as indicated at 38, the straight outer regions of the sockets being intended to receive the inner end portions of the rods 16 in such manner that the inner ends 40 of the rods abut the angulations 36 to limit the extent to which the rods may be inserted in the sockets 32, and thereby prevent possible inward sliding or displacement of the rods between the clamping plates.

Finally, another feature of the invention resides in the provision of a cylindrical closure member or plug 42 in the open outer ends of the rod 16 (see Figure 2) so that the interior of the rod is protected against weather conditions and so that the rods are prevented from "whistling" in strong wind. If desired, the closure members or elements 42 may be equipped with dome-

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shaped, enlarged heads 44 disposed exteriorly of the rods to lessen wind resistance.

It is believed that the advantages and use of the invention will be clearly apparent from the foregoing disclosure, and accordingly, further description thereof at this point is deemed unnecessary.

Having described the invention, what is claimed as new is:

In a television antenna, the combination of a pair of juxtaposed clamping plates each provided with convexo-concave aligned semi-cylindrical ribs which afford in opposing surfaces of the plates a pair of registering grooves defining tubular sockets, a laterally angulated extension provided on the first of said plates for attachment thereof to a support, said extension forming a crease at the juncture with said first plate, the ribs on the first plate extending on said extension substantially perpendicular to said crease to reinforce the latter, said grooves being angulated intermediate the ends thereof whereby each of said sockets affords a straight outer region extending at an angle other than normal to said crease and an angularly offset inner region with said offset inner region extending normal to said crease, said straight outer regions extending divergently relative to each other, said straight outer regions being adapted to slidably receive

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signal receiving rods with the inner ends of said rods abutting portions of the inner regions of said sockets to limit the extent of insertion of said rods into said sockets and with said rods clampingly held in the angulated portion of said grooves, and fastening elements extending through said plates for securing the same together and adapted to clamp said rods therebetween.

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