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L. BITTNER ET AL

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INTERCHANGEABLE ORNAMENTAL INDOOR TELEVISION ANTENNA

Filed April 16, 1957

2 Sheets-Sheet 1

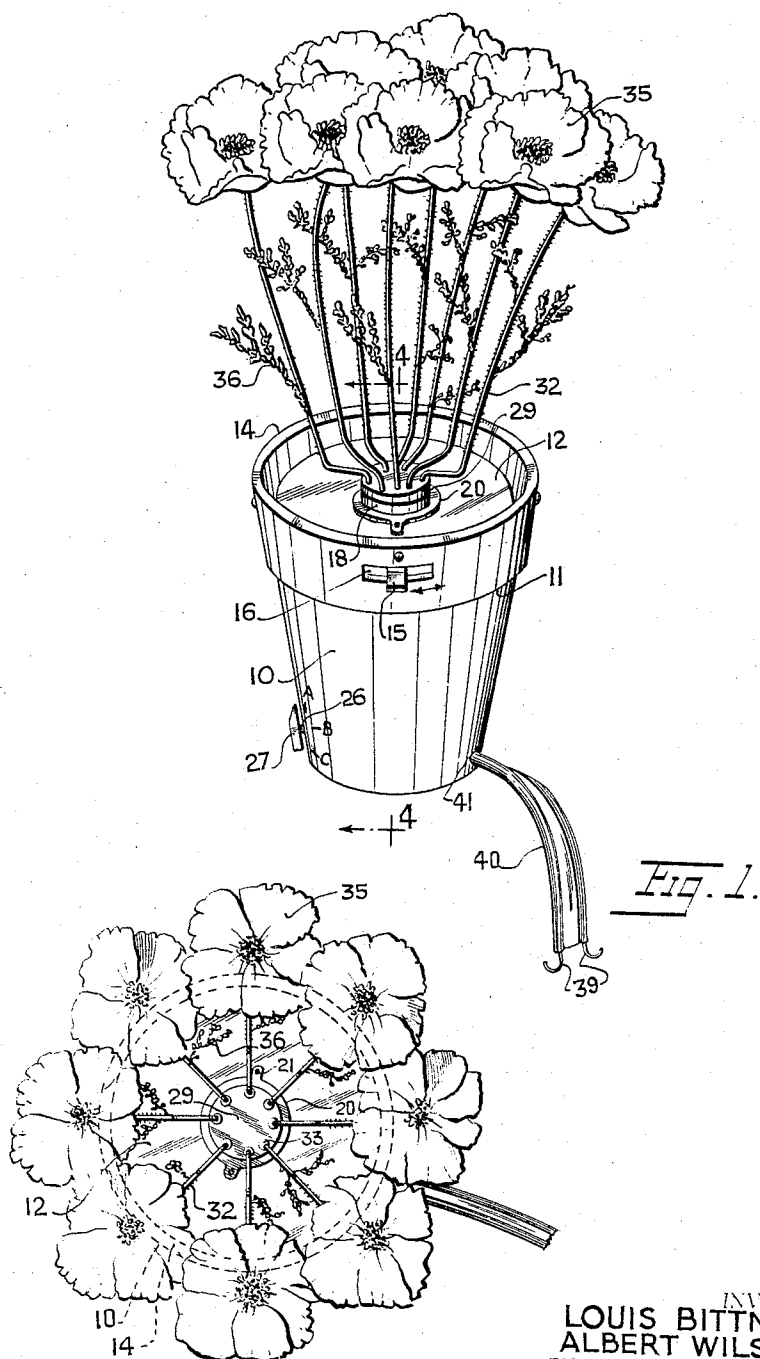


Fig. 1.

Fig. 2.

INVENTORS
LOUIS BITTNER
ALBERT WILSON

BY

Golden Holschlag
ATTORNEY

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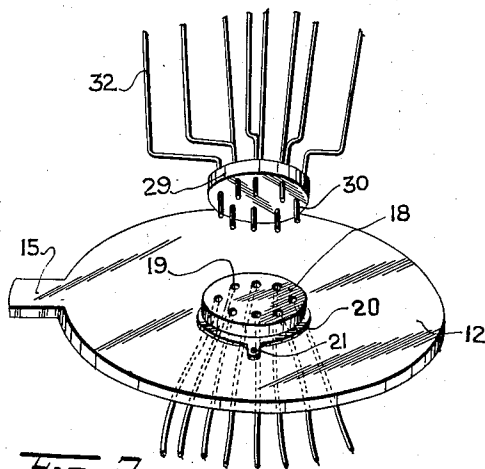


Fig. 3.

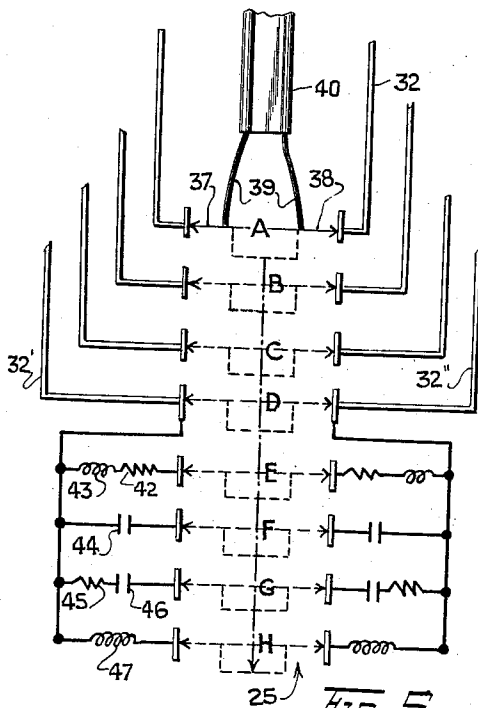


Fig. 5.

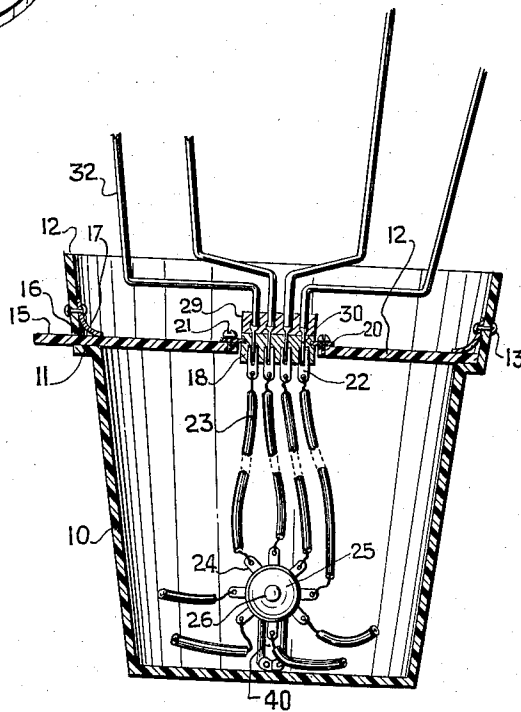


Fig. 4.

INVENTORS
LOUIS BITTNER
ALBERT WILSON
BY *Golden Polachsky*
ATTORNEY

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INTERCHANGEABLE ORNAMENTAL INDOOR TELEVISION ANTENNA

Louis Bittner, Elmhurst, and Albert Wilson,
Ridgewood, N.Y.

Application April 16, 1957, Serial No. 653,225

2 Claims. (Cl. 343—720)

This invention relates to the art of television antennas and particularly concerns an interchangeable ornamental indoor television antenna.

According to the invention there is provided a device having a plurality of dipoles disposed in angularly spaced array. The dipoles are placed at predetermined angles with respect to each other. The dipole array is formed in such a manner that the outer free end of each pole terminates in an ornamental artificial flower. Each pole is embedded in a common base plug which is removably seated in a socket. The socket is supported on a base in a flower pot. The socket is connected to a selector switch and a twin lead wire. By means of the selector switch each dipole in turn can be connected to the twin lead wire which may terminate at a television receiver. The switch has a knob which is accessible outside the flower pot. The switch body is disposed inside the flower pot.

The further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of an antenna device embodying the invention.

Fig. 2 is a top plan view of the device.

Fig. 3 is an exploded perspective view of portions of the device.

Fig. 4 is an enlarged sectional view taken on lines 4—4 of Fig. 1.

Fig. 5 is a diagrammatic showing of the electrical system included in the device.

In Figs. 1, 2, 4 is shown a base member 10 having the form of a flower pot with a tapered body and open top. The pot has an annular ledge 11 on which is seated a circular insulation disk 12. The disk is mounted below the open top rim 14 of the pot. The disk may be pivotally mounted on the ledge. As shown in Figs. 1 and 3, the disk may have an outwardly extending arm 15 which extends through a slot 16 just above the ledge 11 so that the position of the disk can be angularly adjusted on the ledge. Springs 17 press the disk down on ledge 11. Rivets 13 secure the springs to the pot. Centrally mounted on disk 12 is a socket 18 having a plurality of spaced apertures 19. The socket is surrounded by a ring 20 secured by screws 21 to the disk. Located in apertures 19 are lugs 22 to which wires 23 are connected. The wires terminate at lugs 24 of a selector switch 25. The switch has a shaft 26 to which knob 27 is secured for rotatably positioning the switch at desired settings. A plug 29 is removably disposed on socket 18. The plug has prongs 30 which fit into apertures 19 and make electrical contact with lugs 22. Rods or tubes 32 are secured in apertures 33 in the plug and make electrical contact with prongs 30. These rods are radially disposed around the plug as best shown in Fig. 2.

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Instead of rods, flexible wires may be used. They are bent to extend upwardly from the plug at their outer ends. On the free end of each rod 32 is an artificial flower 35 such as a rose, carnation, marigold, or the like. The flowers may be the same or all different on the array of rods. Artificial leaves 36 may also be attached to each rod. Each pair of diametrically opposed rods constitutes a dipole of the antenna array formed by the several rods 32.

Switch 25 has two rotatable poles 37, 38 as indicated schematically in Fig. 5. Wires 39 of a twin lead transmission line 40 are respectively electrically connected to the poles 37, 38. The line 40 extends from switch 25 and passes out of the pot through an aperture 41 near the bottom thereof. The poles 37, 38 are ganged together to move simultaneously and connect each pair of dipoles together in succession to the transmission line. The dotted lines in Fig. 5 indicate the successive positions assumed by the movable poles. The several dipoles are spaced at angles of 45° so that as the knob 27 is rotated to the successive positions A, B, C, D a different pair of dipoles is connected to the transmission line. If the line 40 terminates at a television receiver, the switch may be adjusted so that the dipole which provides the best signal is connected to the receiver. Switch 25 provides a coarse adjustment. The arm or lever 15 may be moved in slot 16 to rotate the disk 12 angularly and thus effectively set the selected dipole in the precise position which delivers an optimum signal. Slot 16 should have a maximum angular extent of 45° of arc so that the selected dipole can be adjusted through the full 45° range.

Switch 25 has additional positions E, F, G, H. In position E one pair of poles 32' has a resistor 42 and an inductor or choke 43 connected in series with each pole and each lead wire 39. In position F, capacitors 44 are connected in series with each pole of the dipole 32', 32". In position G, a resistor 45 and capacitor 46 are connected in series with each pole 32' and in position H an inductor or high frequency choke 47 is connected in series with each of poles 32'. A similar arrangement of resistors, capacitors, and choke coils may be provided for each of the other dipoles in the array and the selector switch will be provided with additional switch positions accordingly. The switch positions E—H make it possible to change the impedance of the antenna circuit in a variety of ways to vary the selectivity of the dipole 32' and any other dipole similarly provided with this choice of impedance elements.

Thus the antenna is not only directionally oriented by means of switch 25, it can also be adjusted in impedance.

The array of dipoles may be more or less in number than the four shown in the drawings. In addition to serving as an adjustable antenna, the assembly serves as a decorative accessory for furniture in a home, office, etc. The dipole assembly may be easily interchanged with another one when it is desired to have a change of floral display. The array may be easily unplugged from socket 18 and another dipole array providing a different floral display can be substituted.

The artificial flowers, foliage, and flower pot effectively conceal the utilitarian features of the device without in any way impairing the electrical functioning of the antenna.

While we have illustrated and described the preferred embodiment of our invention, it is to be understood that we do not limit ourselves to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

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Having thus described our invention, what we claim as new, and desire to secure by United States Letters Patent is:

1. An ornamental interchangeable antenna, comprising a tapered hollow flower pot having an inner ledge, a disk pivotally supported on said ledge, a socket mounted on said disk, a selector switch mounted on the base of the flower pot, a plurality of wires connecting said socket and said selector switch, said switch having a switch actuating knob accessible outside the flower pot, a plug having prongs removably mounted on the socket, a plurality of rods carried by said plug and electrically connected respectively to said socket, each of said rods having its free end terminating in an artificial flower, a transmission line connected to said switch, said switch being arranged to connect successive pairs of said rods to the transmission line as the knob is turned to successive switch positions, said rods being disposed in spaced angular array, each pair of diametrically opposed rods in said array constituting a dipole, and impedance elements connected between at least one of the dipoles and certain contacts of said switch so that said one dipole is modified in impedance as the switch is set to said certain contacts in turn.

2. An ornamental interchangeable antenna comprising a tapered open-ended flower pot, an inner ledge around the pot adjacent its open end, said pot having an

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upper arcuate-shaped slot in alignment with said ledge and having lower opposed openings adjacent its base, a disk seated on said ledge and having a handle extending through said slot outwardly of the pot, a socket mounted on said disk centrally thereof, electrical contacts in said socket, a vertically disposed rotatable selector switch supported on the base of the flower pot, said switch including a horizontally disposed shaft extending through one of the opposed openings, a knob on the outer end of the shaft for actuating the switch, conductors connecting said switch and contacts in the socket, a plug having contacts engageable with the contacts in the socket, and rods extending upwardly from said plug, the bottom ends of said rods being electrically connected to the contacts in the plug, the upper ends of said rods being decorated with artificial flowers, and a transmission line connected to said switch and protruding outwardly through the other opening in the flower pot.

References Cited in the file of this patent UNITED STATES PATENTS

2,204,286	Stevens	June 11, 1940
2,542,884	Trevules et al.	Feb. 20, 1951
2,636,986	Riderman	Apr. 28, 1953
2,659,001	Thorne	Nov. 10, 1953