Aug. 7, 1928. 1,679,675

M. L. LUJAN

ANTENNA SUPPORT

Filed Dec. 4, 1924

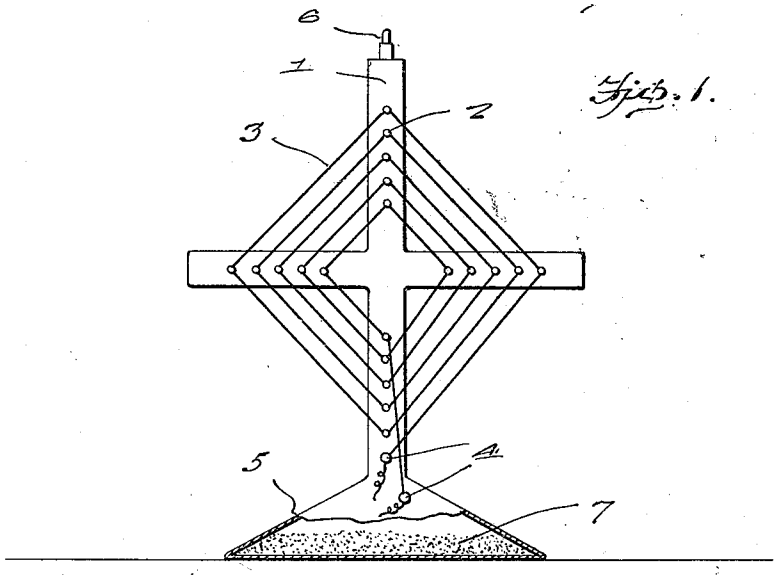


Fig. 1.

Fig. 3.

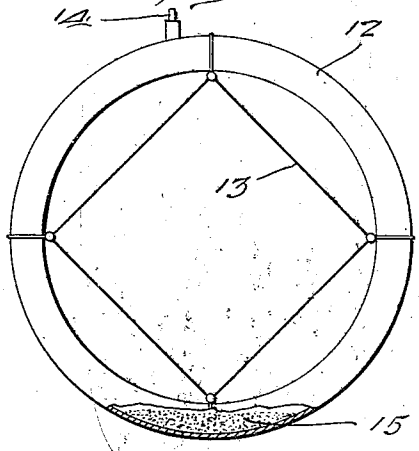
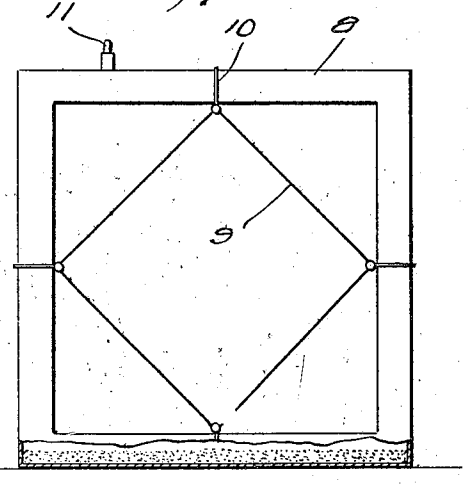


Fig. 2.



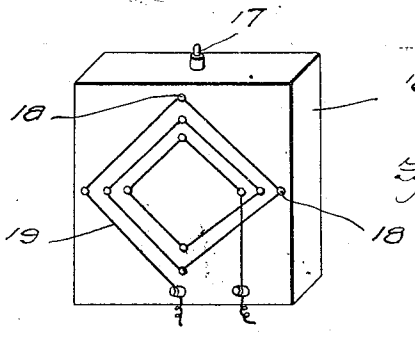


Fig. 4.

Inventor

M. L. Lujan

By Clarence A. O'Brien.

Attorney

Patented Aug. 7, 1928. 1,679,675

UNITED STATES PATENT OFFICE.

MANUEL L. LUJAN, OF LOS ANGELES, CALIFORNIA.

ANTENNA SUPPORT.

Application filed December 4, 1924. Serial No. 753,905.

This invention relates to improvements in antenna supports and more particularly to one which is collapsible and which is hollow.

An object of the invention is to provide a hollow antenna support for coil antenna, which is collapsible and is provided with suitable means to permit the filling or inflation of the same, in order that it may be held in extended position for supporting a coil antenna.

Another object of the invention is to provide a hollow collapsible antenna support, with a valve or the like to permit the filling of the same, with either air, water, or fine powdered or granular material, in order to retain the same in extended form, and also to provide for the filling of the support with material of a particularly heavy nature at the bottom portion, so that it will be retained in upright position, by this substantially heavy weight at the bottom.

Other objects of the invention will be more clearly pointed out in the following detailed description and in the claims directed to preferred embodiments of the invention, it being understood, however, that many variations may be made of the size, shape, and arrangement of parts, of the support, for antennæ of different characters, without departing from the spirit and scope of the invention, as set forth.

In the drawing, forming a part of this application:

Figure 1 is an elevational view of an antenna support and the antenna mounted thereon, a portion of the base being shown in section.

Figure 2 is a view of an antenna support of slightly different form.

Figure 3 is a view of another form of hollow coil support, wherein the same is formed of an annular tubular member and a coil mounted within the support, when extended.

Figure 4 is a detail perspective view of another form of coil support, which may be provided.

In Figure 1, the support is indicated at 1, which is formed of a substantially cruciform member provided at 2 with suitable means for mounting the convolutions of the coils 3, forming the antenna, the terminals of which are indicated at 4, so that the antenna may be suitably connected with a radio receiving set. The cruciform member 1 is suitably carried by a base portion 5, which is formed at the end of one of the arms of the cruciform member, as illustrated in Figure 1, and which provides a substantially large flat base, for supporting the antenna on the surface of a table, floor, or the like.

The entire cruciform member and the base 5 are formed of a suitable flexible material, such as rubber, canvas, or other form of fabric or the like, so that the same is hollow throughout, as clearly indicated by the portion shown in section. The upper arm of the cruciform member 1 of the support is provided with a suitable inflating valve, indicated diagrammatically at 6, or other form of opening, in order to provide for access to the interior of the support, so that it may be filled with air, sand, powder, water, or any other filler material, which will hold the same in extended position, as indicated, the opening being closed, after the same is filled, in order to prevent the escape of the contents of the member. In order that the coil support will be retained, at all times, in an upright position, as shown in Figure 1, it is preferably that some heavy material, indicated diagrammatically at 7, be placed in the support, so that it will be positioned in the base portion 5, in order to provide a greater weight in this base portion, for retaining the cruciform member in upright position. Sand could be used for this purpose, when the support is inflated with air, and it will be appreciated would efficiently hold the cruciform member in upright position. In Figure 2, the support is illustrated at 8, as being formed of a tubular member arranged in substantially square form, and adapted to support the coil 9 within the same, by suitable hanger means 10. The valve or opening is indicated at 11, by means of which the support may be filled or inflated, for retaining it in extended position, so as to support the coil 9. A similar structure is shown in Figure 3, wherein a support 12 is formed of a tubular member of even section throughout, and arranged, when inflated to assume a ring like form, for supporting the coils 13 therein, the valve or opening being indicated at 14, and a suitable heavy material at 15, for retaining the support in a predetermined position at all times.

In Figure 4, the hollow coil support is indicated at 16, which is of a cubic form, having the valved opening at 17, in order that the same may be filled. This cubic member 16, forming the support, is provided with

suitable means at 18, by which the coil 19 may be secured on one face thereof, while the means may be duplicated on the opposite side in order to support another coil in a similar manner.

A very novel and efficient antenna support is provided, as above described, wherein the whole support is formed of a hollow cloth or rubber structure, which is ordinarily collapsible, so that the same may be folded, rolled, or otherwise carried in a box or other package of small size, so that it may be conveniently transported from place to place, and which is readily fillable, either with air or other suitable means, for retaining the same in extended position, to support a coil antenna. Any suitable means may be mounted on the coil support, for receiving and mounting the convolutions of the antenna coil, such as hooks, buttons, or suitable insulating devices, which may be attached to the fabric, or embedded therein, in any desired manner.

What is claimed is:

An antenna support, comprising a hollow flexible member formed to provide a hollow supporting base and a hollow supporting frame mounted thereon, the hollow supporting frame and base communicating, an inflating valve for the hollow flexible member, a filler removably inserted through said valved opening to provide a center of gravity in said base portion for said antenna support, the member being adapted to have the remaining portion filled with a suitable substance to retain the member in substantially rigid extended relation, and means on the supporting frame for receiving and mounting an antenna winding therein.

In testimony whereof I affix my signature.

MANUEL L. LUJAN.