Dec. 8, 1925. 1,565,206

G. F. RUZICKA

RADIO COIL MOUNT

Filed Jan. 14, 1925

Fig. 1.

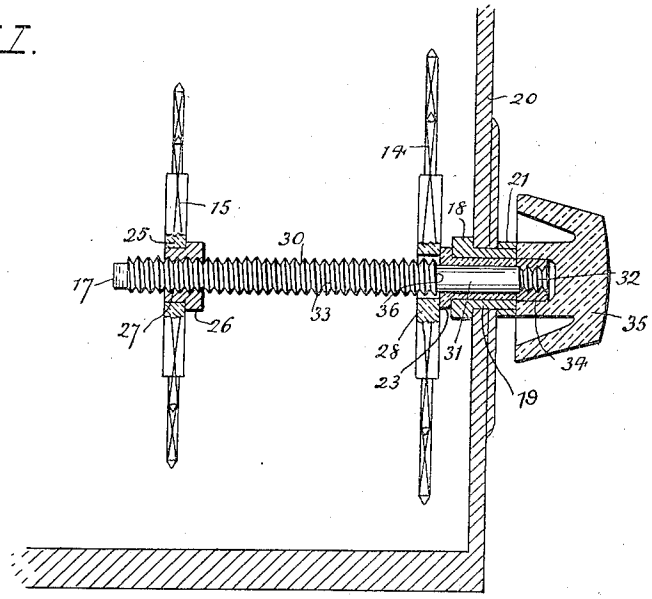


Fig. 4.

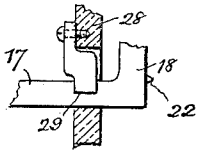


Fig. 2.

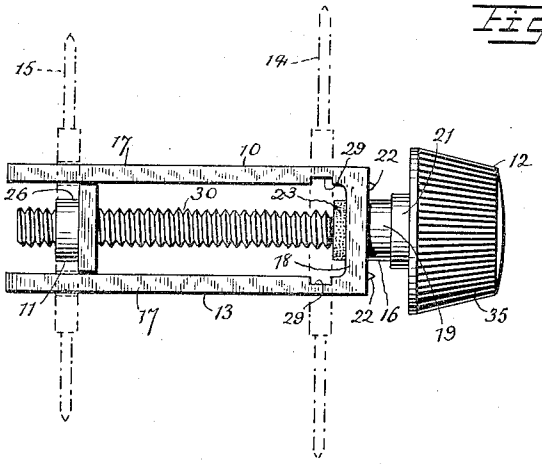
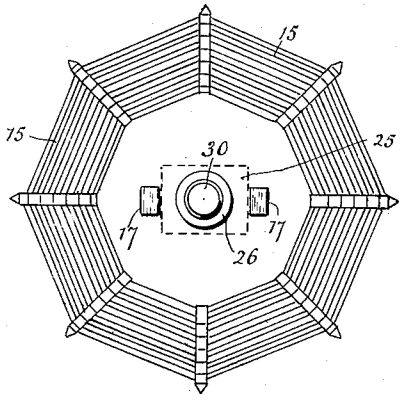


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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RADIO COIL MOUNT.

Application filed January 14, 1925. Serial No. 2,339.

To all whom it may concern:

Be it known that I, GEORGE F. RUZICKA, a citizen of the United States, and a resident of Bohemia, in the county of Suffolk and State of New York, have invented a new and Improved Radio Coil Mount, of which the following is a full, clear, and exact description.

This invention relates to radio-coil mounts.

One of the objects of the present invention is to produce an efficient mount for more effectually adjustably supporting coactive elements.

Another object of the invention is to produce a mount especially adapted for adjustably supporting radio-active elements for the obtainment of more perfect selectivity and volume in tuning operations.

With the foregoing and other objects in view, the invention resides in the particular construction and relative disposition of the parts hereinafter fully described and illustrated in the accompanying drawings, in which

Figure 1 is a central vertical sectional view through the mount of the present invention and showing the same applied to a part of a radio cabinet, with a pair of radio-active coils applied thereto;

Fig. 2 is a plan view of the mount detached from the cabinet with the mentioned coils removed but which are shown in dot-and-dash lines;

Fig. 3 is an end elevation, and

Fig. 4 is a detail sectional view.

The mount of the present invention, generally, comprises stationary supporting means 10, movable supporting means 11, and manipulating means 12 for operating the movable supporting means 11.

Referring more particularly to the drawings for the details of the invention, it will be seen that the stationary supporting means 10 consists of the parts presently described. A supporting member 13 is employed for supporting and guiding respectively, coactive elements, which in the present instance are in the nature of radioactive or induction coils 14 and 15. The supporting member 13 comprises attaching means 16 and parallel guides 17. The guides are connected by a cross piece 18, having a boss 19. The boss is extended through a hole in a part which is to carry the mount in its entirety, such as the wall 20 of the radio cabinet shown; a collar 21 being arranged on the boss 19 to hold the member 13 stationary, small pointed projections 22 on the cross piece 18 impaling themselves in the wall 20 in the attachment of the member 13. A preferably non-metallic bushing 23 of insulating material is arranged in a bore extending through the cross piece 18 and its boss 19 for a purpose to appear.

The movable supporting means 11 consists of detachably related parts 25 and 26, the latter having a screw-threaded bore 27. The part 25 has spaced holes therein to respectively receive the guides 17. In the present instance the coil 15 is shown as being attached to the part 25, to form a unitary structure, but the same may be detachably supported thereby.

Both coils 14 and 15 are in the nature of spider-web coils. The coil 14 has a central part 28 with openings therethrough to accommodate the guides 17, and portions of the part 28 extend into notches 29 in the guides 17. It will now be understood that the coil 14 is stationarily mounted, whereas the coil 15 is mounted for movement toward and away from the coil 14 parallel thereto; the movement of the coil 15 being a rectilineal one.

In order to effect a movement of the coil 15 and its connected parts, there is employed the manipulating means 12 mentioned. The means 12 consists of an element 30 having a plain portion 31 disposed between a screw threaded portion 32 and a screw-threaded portion 33. The portion 31 is disposed in the bore in the bushing 23, and a nut 34 is applied to the screw-threaded portion 32, a manipulating knob 35 being then forced on to the nut 34. The plain portion 31 of the element 30 is reduced to form a shoulder 36, which, with portions of the knob 35, serves to prevent endwise or longitudinal movement of the element 30, but permits its rotation upon the manipulation of the knob 35. The element 30 extends through an opening in the part 28, and the portion 33 of said element is in screw-threading engagement with the part 26, the latter having a screw-threaded bore therethrough so that the part 26 coacts with the portion 33.

It will now be understood that upon the turning of the knob 35, the part 25, which supports the coil 15, may be moved at will along the portion 33 to vary the distance

between the coils 14 and 15. The guides 17 serve not only to guide the coil 15 and its connected parts in a rectilineal path, but also prevent the coil 15 from turning.

In the particular use of the mount shown, in which the spider-web coils are supported, it will be appreciated that these coils may have their relationship changed at will for the obtainment of a desired radioactivity, the coils being inductively related. It will be noted that the most minute adjustment of the coil 15 with respect to the coil 14 may be obtained, and that the coils are always maintained in substantial parallelism, which gives better results than have been obtained heretofore.

By employing the bushing 23, which, it is to be understood, is made of comparatively soft material, preferably non-metallic, but not necessarily so, that extraneous vibrations are eliminated when effecting an adjustment of the coil 15, thus obviating noises in the head-set or loud speaker, as the case may be.

I claim—

A mount comprising a support comprising parallel guides and a crosspiece between the guides at adjacent ends thereof; said crosspiece having a bearing boss; a bushing in said bearing boss, an element having a relatively long screw-threaded portion and a reduced plain portion and a screw-threaded extremity, the plain portion being disposed in said bushing for rotatably supporting said element, a nut connected to said screw-threaded extremity and serving with said crosspiece to hold said support fixed to a panel or the like, a manipulator knob attached to said nut, a carrier having holes and a screw-threaded bore, the holes in said carrier respectively receiving said guides to prevent the carrier from turning, the relatively long screw-threaded portion being extended in the screw-threaded bore in said carrier so that upon the manipulator knob being turned the carrier will be slid along said guides, and a second carrier supported by said guides and held against movement thereon and with respect to which said first carrier is moved toward and away from the same.

GEORGE F. RUZICKA