July 1, 1930. I. NACHUMSOHN 1,769,851

RADIO APPARATUS

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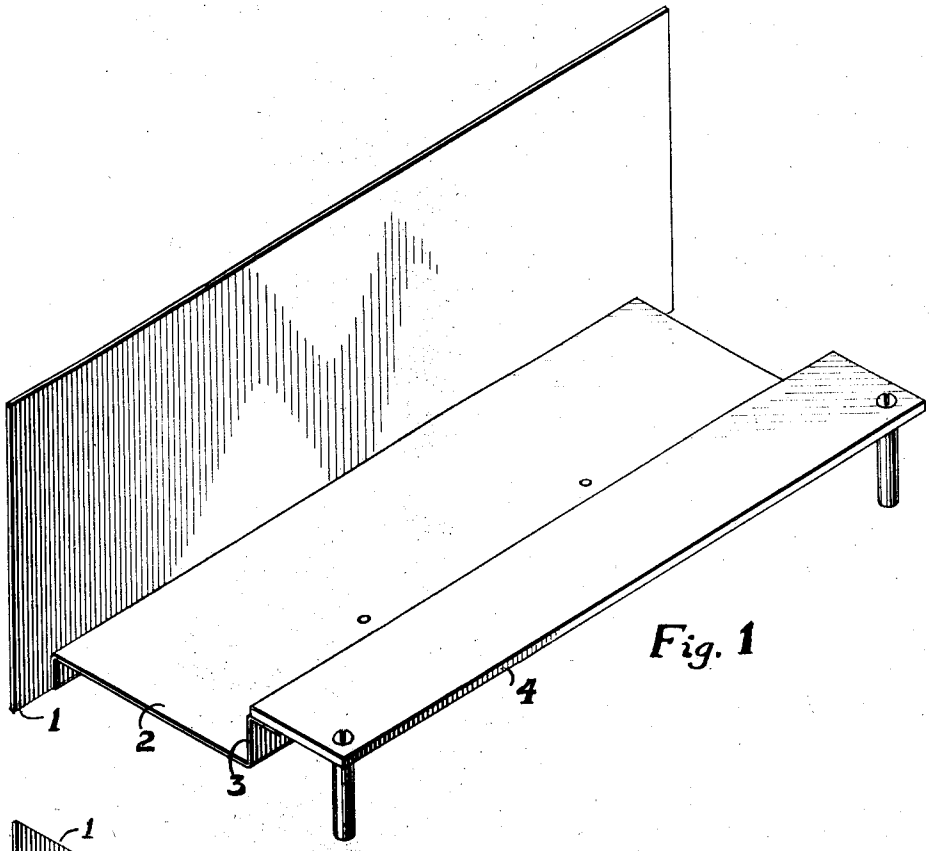


Fig. 1

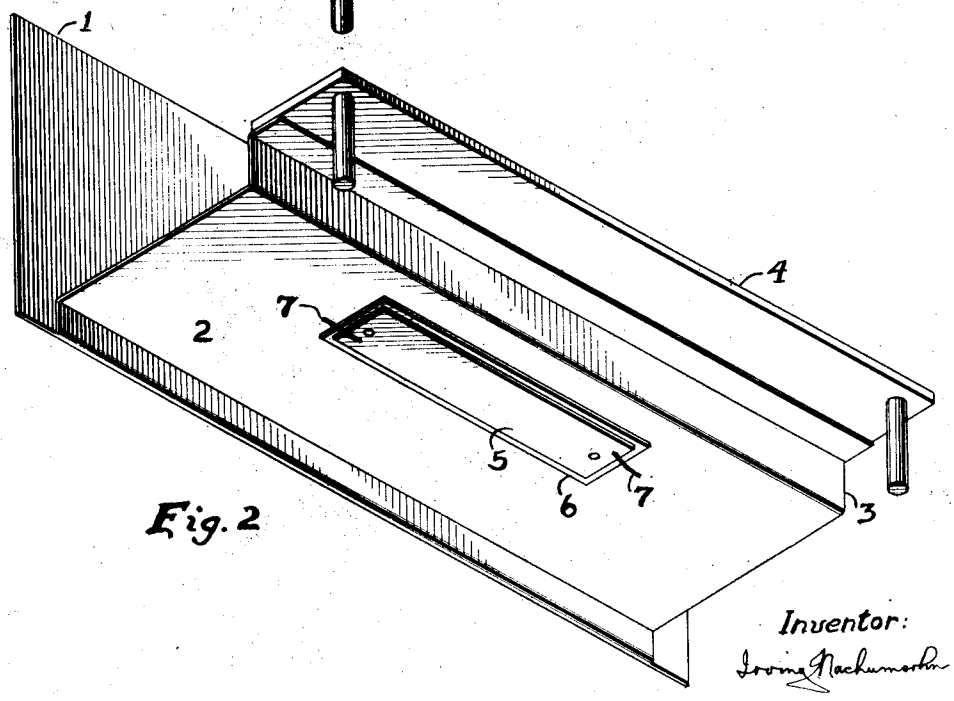


Fig. 2

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RADIO APPARATUS

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My invention relates to the improvement in radio apparatus and more particularly to the structure associated with and supporting the various parts of a radio receiver. It consists of the combinations, constructions and arrangements hereinafter set forth, illustrated in accompanying drawings and more particularly pointed out in the appended claims.

Amongst the objects of my invention are: to provide a device of the character described that will form a relatively simple support, or chassis, for the units such as inductances, capacities, vacuum tubes, etc. that go into a radio receiving set; to provide a panel on which the usual tuning control knobs can be mounted and a base portion mounted integrally with said panel for supporting other apparatus, thus eliminating the conventional brackets commonly used in radio receivers for securing the panel to the base-board. Also, since a large portion of the units have a common electrical connection, such as earth, it is desirable to ground such units as are necessary to the chassis, thereby obviating the necessity of running separate wires for this purpose between the units. Moreover, many circuits used in radio receivers require a capacity between certain parts or conductors, and earth. Ordinarily a condenser having a capacity of .25 microfarads or greater is used for this purpose and one side of this condenser is connected to earth. In my improvement the conducting chassis forms one plate of this condenser and a dielectric, such as a sheet of mica, is secured thereto by a second conducting plate forming the remainder of the condenser. The shape of the attached conducting plate may be such as to form some of the wiring of the set.

Other and further objects and advantages will appear as the specification progresses with reference to the accompanying drawings and novel features will be particularly pointed out in the appended claims.

In the drawing, Fig. 1 is a perspective view showing the preferred form of the improvement; Fig. 2 discloses the bottom of the base portion and shows the arrangement of the condenser plates.

With reference to Figs. 1 and 2, the portion of the chassis forming the panel onto which the tuning control knobs and associate apparatus may be mounted is shown at 1. Formed integrally therewith and in perpendicular relation thereto is a base portion 2. To the rear of said base and extending in perpendicular relation is a vertical portion 3 to the upper end of which is fastened a panel 4 made of suitable insulating material. This panel may be used for mounting the vacuum tube sockets, binding posts, etc.

The entire metallic chassis may form part of the electrical circuit, preferably that part of the circuit which is connected to ground. In order to form a capacity between this common ground connection and any desired parts of the circuit the chassis is utilized as a part of a condenser, having fastened thereto a metallic plate 5 separated from the base portion 2 by a sheet of dielectric material 6. While the capacity plate 5 is shown with lead wires 7 fastened thereto, it is obvious that said plate may be made integrally with the wires 7 or with any other predetermined portion of the wiring.

It is obvious that numerous changes may be made in details set forth without departure from the spirit and scope of the invention as defined in the claims.

I claim:

1. In a radio apparatus, the combination with an electro-conductive chassis, of an electro-conductive member arranged for electrical connection with chassis mounted units, and a dielectric between said chassis and member whereby to form a condenser.

2. In a radio receiver including a metal chassis, a condenser, said chassis forming one side thereof.

3. The combination, in a radio apparatus including a grounded metal unit supporting member, of a dielectric element having surface contact with said unit supporting member, and an electro-conductive member having surface contact with said dielectric element and arranged for electrical connection with units on said supporting member.

4. A radio chassis comprising a metal plate formed with a flat face portion con-

stituting a control panel, a section of said plate being bent upwardly upon itself from the bottom edge of the control panel for a short distance and then bent laterally rearward from the control panel to form a unit supporting section, said plate having an upwardly bent rear wall formed at the edge of the unit supporting section opposite to the control panel, and an integral lateral ledge portion formed at the top of said rear wall section.

5. In a radio apparatus, a chassis comprising a one piece metal plate bent upon itself to provide a front control panel, a rear wall panel, and a unit supporting section extending between the control panel and the rear wall panel, said unit supporting section being elevated above the bottom edge of the control panel.

6. In a radio apparatus, a grounded metal shield plate, a strip of dielectric material disposed over an area of said plate, a strip of electro-conductive material disposed over an area of said dielectric and out of contact with said plate, and means securing said plate, dielectric material and electro-conductive strip in associated attached relation.

7. In a radio apparatus, the combination with a metal supporting member, of an electro-conductive member arranged for electrical connection with means held by said supporting member, and a dielectric between said supporting member and said electro-conductive member whereby to form a condenser.

8. In a radio apparatus, the combination with an electro-conductive chassis, of an electro-conductive member capacitively associated therewith, and a dielectric between said chassis and member.

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