Oct. 19, 1926. 1,604,030

R. G. EWEN

RADIOSWITCH

Filed Nov. 25, 1924

FIG. 1

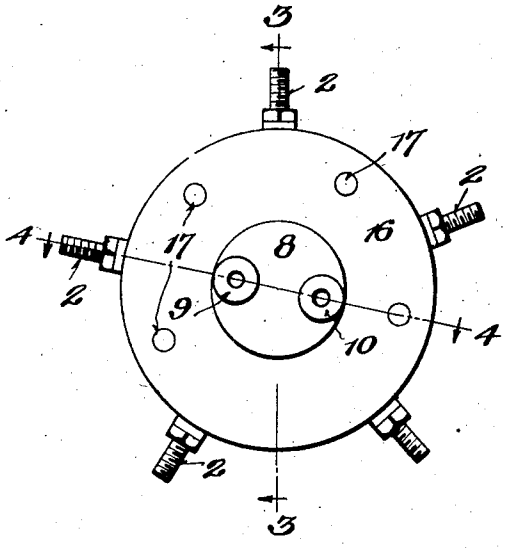


FIG. 2

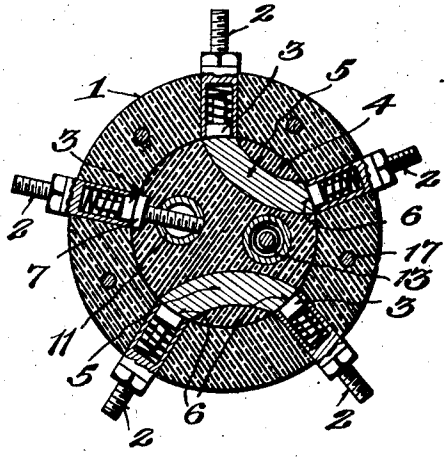


FIG. 3

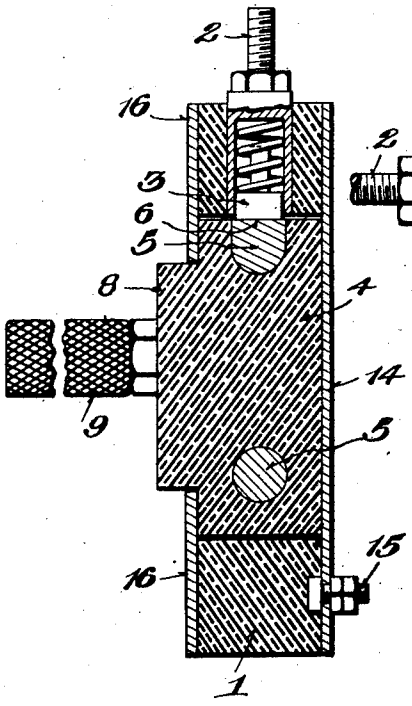
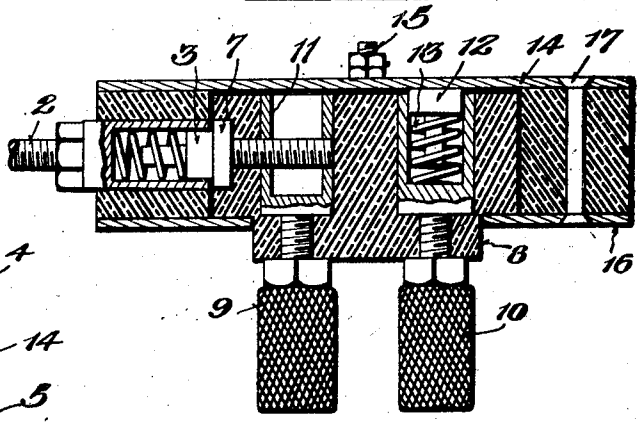


FIG. 4



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UNITED STATES PATENT OFFICE.

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RADIOSWITCH.

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This invention relates to an adjustable phone jack, especially adapted for radio receiving sets and having a stage or stages of amplification, and it has for its object to provide a phone jack capable of being adjusted to connect the phones either with the detector circuit alone or with a selected stage of amplification without the necessity of "plugging in" into the desired circuit in the usual manner.

The invention further resides in the salient features of construction, and the arrangements and combinations of parts hereinafter described and claimed, reference being made to the accompanying drawings wherein:

Figure 1 is a plan view of the improved adjustable jack;

Figure 2 is a transverse section therethrough in the plane of the body;

Figures 3 and 4 are transverse sectional views on lines 3—3 of Fig. 1 and 4—4 of Fig. 1 respectively.

Referring more in detail to the drawings, the numeral 1 designates a ring or annular body of insulating material having, in the present instance, five binding posts 2 extending radially therethrough, each having a recessed inner end receiving a resilient or spring backed contact 3, and a screw threaded, projecting outer end to which a circuit wire may be attached.

Rotatably mounted within the ring body for adjustment is the disk-like body of the switch or contact bearing member 4 having peripheral contacts for making electrical connection with the resilient contacts 3. In the preferred embodiment a pair of arcuate conductor bars 5 are embedded in the insulating material from which the body 4 is formed, the opposite ends of each bar terminating in the peripheral surface of the said body, thereby providing plural pairs of connected contacts 6. A single contact 7 is also provided on the periphery of the adjustable contact-bearing member 4, the said contacts 6 and 7 being spaced similarly to the contacts 3 whereby all of the latter will be concurrently engaged by the contacts 6 and 7.

The switch member 4 has an axial boss or shoulder 8 on which phone binding posts 9 and 10 are mounted, the post 9 having electrical connection through its base with contact 7, as indicated at 11, while post 10 is formed with an axially tubular base opening through the bottom of the member 4. Housed within the tubular base is a slidable contact 12 and a coiled spring 13 which latter yieldably urges the contact 12 outwardly against a brass conductor plate 14, the latter being in turn connected to the source of electrical energy as by a binding post 15. The back plate 14 is substantially coextensive with the contact ring 1 and switch member 4 and is herein depicted as solid, although it is obvious that the plate 14 may be made in segments insulated from each other whereby one segment can be connected to a low voltage of the B battery while another segment can be connected to a higher voltage.

Cooperating with the back plate is a front, annular plate 16, engaging about the shoulder 8 and secured through the contact ring 1 to the back plate by fasteners 17, for holding the switch member in position within the said contact ring and at the same time permitting relative rotary movement thereof.

The advantages of the improved jack are very apparent, the most obvious of which is that the usual and annoying "plugging in" is done away with absolutely. The mounting of the single jack is much simpler than mounting many of the "plug in" type, and in this connection it will be noted that the jack is to be mounted against the back of the cabinet panel with the shoulder 8 protruding through a single hole cut in the panel whereby only the phone posts project forwardly. To connect the phones, or loud speaker, with either circuit, it is only necessary to grasp the phone posts 9 and 10 and turn the switch member to the desired adjustment.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A radio switch comprising a body having an opening, inwardly yieldable contacts arranged about the wall of said body opening, a switch member rotatable in the body opening, contacts on the switch member for selectively connecting pairs of the first contacts, a pair of posts on the switch member, another contact on the latter connected to one of the posts, a conductor plate secured to the body and holding the switch member against displacement, and electrical connection between the other post and said plate.

2. A radio switch comprising a ring body,

binding posts secured on the periphery thereof and extending through to the inner periphery thereof, their inner ends being in the form of inwardly opening cups, yieldable contacts slidable in the cups, a disk-like body rotatable in the ring body and on which the contacts bear, means on the periphery of the rotatable body for selectively connecting a pair of said contacts, a contact on the rotatable body for engaging a selected one of said first contacts, a pair of posts carried by the rotatable body one of which is connected to the single contact, a conductor plate secured to one side of the ring body and engaging over the rotatable body, means on the opposite side of the ring body cooperating with the plate to hold the rotatable body against displacement, and an electrical connection between the other post and said plate.

In testimony whereof I have signed my name to this specification.

ROBERT G. EWEN.