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B. O. TEMPLETON
ELECTRIC RESISTANCE DEVICE
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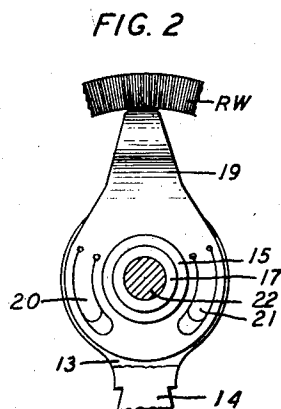
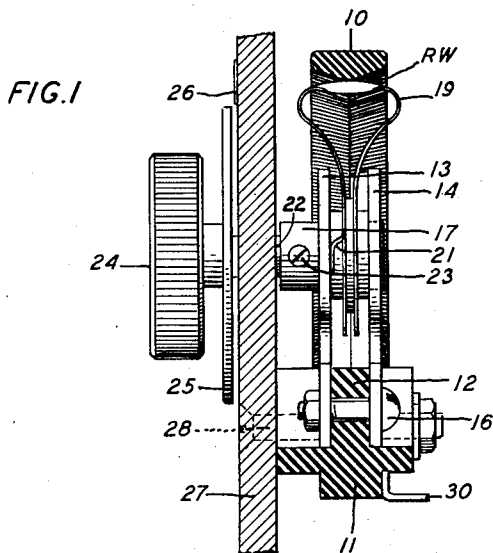
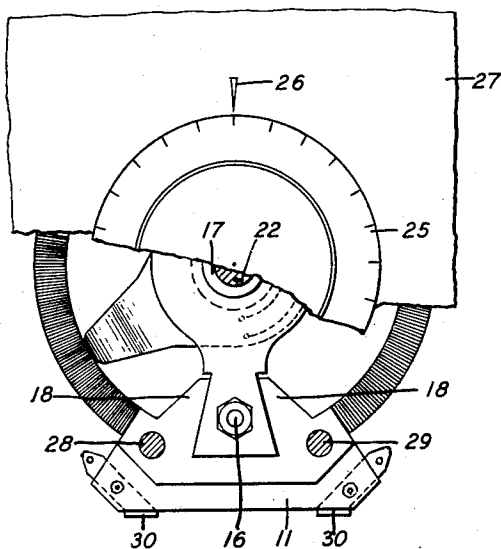


FIG. 3



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ELECTRIC RESISTANCE DEVICE

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1 Claim. (Cl. 201—56)

This invention relates to electrical resistance devices or rheostats for use in the radio art and in connection with testing apparatus and the like.

5 The object of this invention is to provide a rheostat which will be cheap to manufacture, efficient in operation and which will embody a minimum of operating parts.

10 In the rheostat of this invention a unitary structure is formed by providing a mounting head or block with a ring shaped core which carries the resistance wire. This wire is coiled around the core on a machine such as a toroidal winding machine and the mounting block is
15 provided with means whereby a pair of brackets are placed readily and accurately in their adjusted position with respect to the revolution center of the core and this without requiring individual adjustment of the brackets. On these
20 supporting brackets is rotatably mounted a hub which carries a brush for engaging the resistance coil and the face of one of the brackets is made relatively large in order to provide a
25 slip ring surface for a pair of wiper springs which are formed with the brush. The mounting block has portions arranged to serve as stops for the brush and means is also provided on the block for mounting the terminals for the coil and for securing the unit structure thus formed directly on its mounting board or panel.

In the drawing:

Fig. 1 is an assembly view of the resistance showing a number of parts in section;

35 Fig. 2 is a partial view showing the brush in engaged relation with the coil; and

Fig. 3 is a front assembly view of the resistance showing a number of parts with portions cut away.

40 In Figs. 1 and 3 of the drawing are shown a circular core 10 of insulating material such as bakelite on which the resistance wire RW is coiled. The core 10 is preferably formed integrally with a mounting head or block 11 having a lug 12 provided for mounting two radial
45 supports 13 and 14 in spaced relation with respect to an enlarged portion of a bushing 17. These supports are secured on the lug 12 by a common screw 16. The block 11 has portions such as 18 shown in Fig. 3 extending over the
50 sides of supports 13 and 14 for holding them in coaxial alignment with respect to the revolution center of coil 10, these lugs permitting the removal or assembly of the supports 13 and 14 from the mounting block without necessitating
55 adjusting operation.

On the enlarged portion of bushing 17 is mounted a brush 19 which extends in a radial direction therefrom in the form of a loop which engages with coil 10 as shown in Fig. 1.

Brush 19 is provided with a pair of wipers 20 60 and 21, each engaging the inner face of support 13. In bushing 15 is mounted a shaft 22 which is secured therein by means of a screw 23 and on the other end of the shaft is mounted a knob 24 provided for rotating the wiper 19 65 in a well known manner.

A dial 25 carried by the knob 24 cooperates with an index mark 26 for indicating the position of the brush 19 with respect to the coil. The unit-structure thus formed is secured on a 70 mounting board 27 by screws such as 28 and 29 engaging the block portion 11 as shown in Figs. 1 and 3. On the block 11 are secured as by rivets two terminals such as 30 to which the ends of the coil and the ends of the lead-in 75 wires are connected.

What is claimed is:

In a resistance device, a toroidal core, a mounting block formed integrally therewith, the inner periphery of said core being substantially V-shaped, a resistance wire wound on said core, a pair of individually removable supports mounted on said block, said supports having portions registering with similarly shaped portions in the sides of said block, and secured thereto, said block having a radially extending lug defining the space relation of said supports, a bushing rotatably mounted in said supports, a brush mounted on said bushing and formed at its free end in the shape of a loop extending in yieldable contacting relation with said wire at the intersecting point of the lines forming the V-shaped portion of said core, a wiper carried by said brush engaging one of said supports, a knob for rotating said brush, and stops formed integrally with said mounting block for limiting the movement of said brush.

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