Oct. 26, 1926. 1,604,857

F. W. STEIN

ILLUMINATED RADIO CONTROL DIAL

Filed April 30, 1925

Fig. 1.

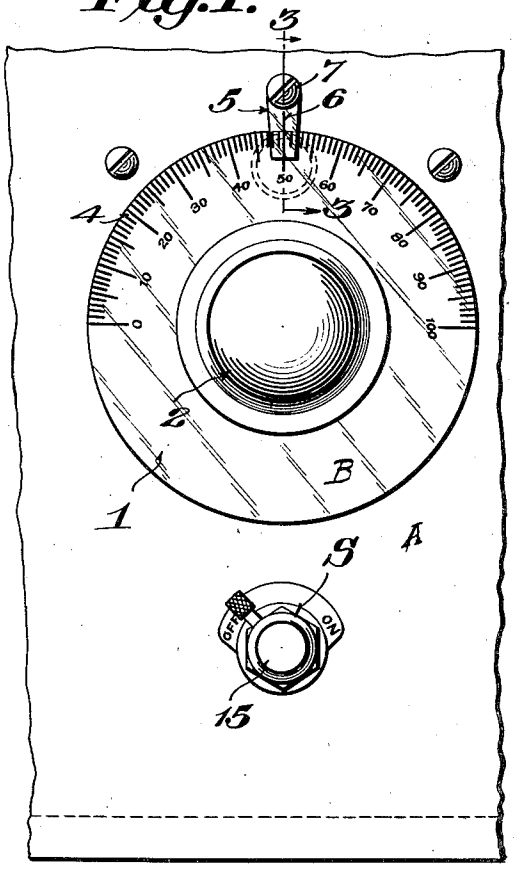


Fig. 2.

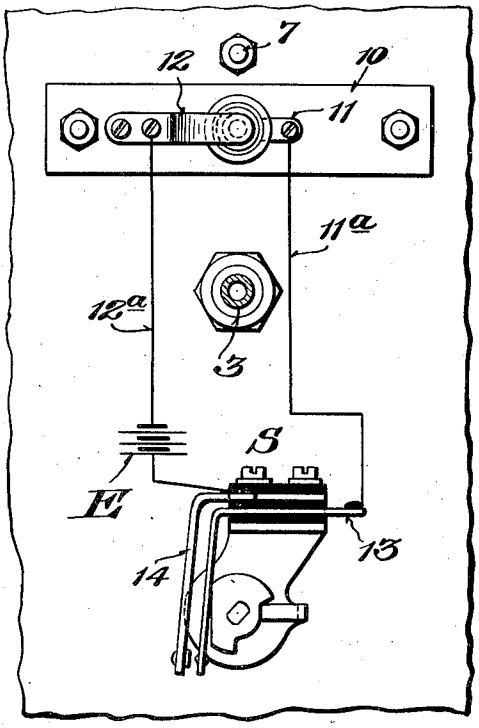


Fig. 3.

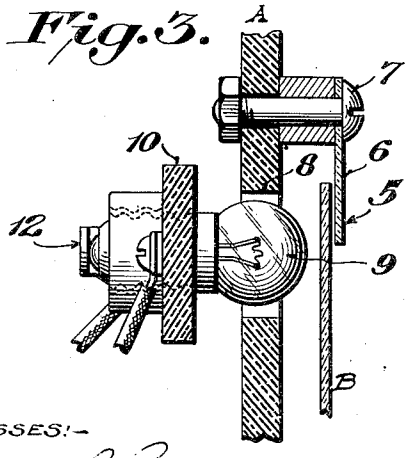
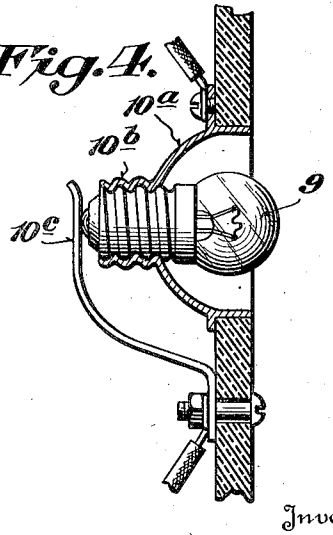


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ILLUMINATED RADIO CONTROL DIAL.

Application filed April 30, 1925. Serial No. 27,117.

This invention relates to radio apparatus, and more particularly to a novel control dial constructed for maximum accuracy in setting and also to make it possible to at all times read the indications with ease, even in dark rooms or under similar conditions.

A primary object of the invention is to provide a novel construction and arrangement including a translucent dial operating in conjunction with a source of light and a pointer or indicator in such a way that opaque indications on the translucent dial and pointer may be brought into perfect registry thereby to accurately obtain the desired settings. Under present conditions it is frequently difficult to obtain the desired adjustments easily and quickly, and furthermore it is sometimes tedious and annoying not to be able to quickly set the dial to the proper point on account of either poor light on the dials or lack of sharply contrasted indications.

However, with the present construction and arrangement these objects will be entirely obviated and the matter of adjusting the dials greatly facilitated. A further object of the invention is to provide a construction that is simple, practical and reliable thereby materially enhancing the nature of the improvement from both a manufacturing and practical standpoint.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed

A preferred and practical embodiment of the invention is shown in the accompanying drawings in which

Figure 1 is a front elevation of a portion of a radio panel equipped with the present improvements.

Figure 2 is a rear elevation.

Figure 3 is a vertical sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a detail sectional view illustrating a modified form of lamp support.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

By reference to the accompanying drawings it will be observed that the present invention includes in its organization a panel A which may be a part of a radio cabinet, supporting in the conventional manner a novel control dial designated generally as B of the type usually employed for adjusting or setting the condensers or other parts of radio apparatus. This control dial preferably consists of a translucent disc 1 of celluloid or other like translucent material provided with the manipulating knob 2 and the usual journal portion 3 mounted in the panel A whereby the translucent disc may be manipulated through the desired arc in the usual manner. The said disc 1 which constitutes the body of the dial is provided with a plurality of opaque index lines or calibrations 4 having proper scale indicia to assist in the proper setting of the dial to locate the desired stations.

The said translucent disc of the dial B cooperates with a translucent pointer or stationary index member 5 also preferably of celluloid or the like and having a single gauge line 6. The said index member 5 is preferably carried by stud 7 mounted on the panel A and, as shown in Figure 3, the said index member is preferably spaced outwardly from the panel board so that the disc passes between the rear face of the index member and the panel. Also the index member is preferably pendant from the stud 7.

At the location of the pointer or index member 5, and behind the disc 1 the panel board A is provided with an opening, window or its equivalent 8 for permitting light from any suitable source to be projected against the rear face of the disc 1 so that the opaque lines 4 on the disc will be readily distinguishable, and likewise the line 6 on the index member will also be readily visible, thereby to greatly assist in bringing the dial to the proper setting by effecting accurate registration of the marks on the disc with the stationary index. The source of light projected onto the rear face of the disc 1 may be furnished by any suitable and convenient means, such for example as an electric lamp 9 carried by a suitable support 10 fitted to the inside of the panel A and also carrying therewith the lamp terminals 11 and 12, respectively for the screw plug of the lamp and the center plug contact thereof. These terminals 11 and 12 are included in a circuit indicated by the wires 11^a and 12^a which lead to the terminals 13 and 14 of a switch device S. This switch device may be of any suitable or approved type, and pref-

erably has a manipulating knob or the like 15 arranged at the front of the panel board whereby the circuit may be opened and closed to the lamp 9 thereby to cause light to be thrown against the rear face of the disc or darken the window 8 as desired. The switch S is also included in circuit with any suitable and convenient source of electrical energy diagrammatically designated as E. The said source of energy may be the usual A battery of the radio apparatus, or it may be a separate battery if desired.

Figure 4 of the drawing illustrates a modified form of lamp support, the same being designated as 10^a. The lamp support may be a bowl reflector detachably fitted to the panel and having the screw shell socket portion 10^b for carrying the lamp. The center plug contact 10^c is preferably spring metal and holds the lamp and bowl detachably to the panel. When it is desired to remove or replace the lamp the spring 10^c is turned on its supporting fastening as a pivot to clear the lamp plug. Both the bowl and spring contact 10^c are included in the circuit in the same manner as above described.

With the construction and arrangement described it will be apparent that when the switch is manipulated to close the circuit to the lamp 9 the rear face of the translucent disc 1 will be flooded with light in the zone of the stationary index or pointer 5. The disc 1 and the pointer, both being translucent, and the indications thereon being opaque, it will be readily seen that the marks on the disc and the pointer may be accurately brought into registration or the proper relation to effect the desired setting. The disc 1 of the dial B may be made of white celluloid or other translucent material, and the same is also true of the index or pointer member 5.

The distinctive features of the present invention are the apertured panel A and the translucent disc and pointer which permit of a selectively controlled source of light to be projected onto the rear face of the dial thereby to facilitate the manipulation and setting thereof.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:—

1. In a radio apparatus, the combination with a panel having an opening, a source of light, a translucent pointer arranged in front of the opening and a translucent dial member adapted to be moved between said source of light and said pointer.

2. In a radio apparatus, the combination with a panel having an aperture, a source of light at one side of the panel and adapted to be projected through the aperture, and a movable translucent dial and a pointer arranged in overlapping relation at the side of the aperture opposite the source of light and having opaque index lines thereon.

3. In a radio apparatus, a panel having an opening, a support at one side of the opening, a lamp carried by said support, a switch carried by the panel, a translucent dial movably mounted on the panel and having opaque index lines thereon, and a translucent pointer mounted in a fixed position at one side of the translucent dial and also having an opaque line thereon whereby when the lamp is illuminated by the closing of the switch the translucent dial and pointer will be flooded with light to contrast the opaque index lines thereon.

4. In a radio apparatus, a panel having a rotatable dial element journaled therein, a source of light mounted on the panel and normally concealed by the dial element, a switch mounted on the panel and adapted to control the source of light, a stud carried by the panel above the dial, and a pointer carried by said stud and depending over the face of the dial.

In testimony whereof I hereunto affix my signature.

FRED W. STEIN.