Sept. 20, 1927. 1,642,677

A. H. GREBE

ILLUMINATING DIAL

Filed May 28, 1925 2 Sheets-Sheet 1

Fig. 1.

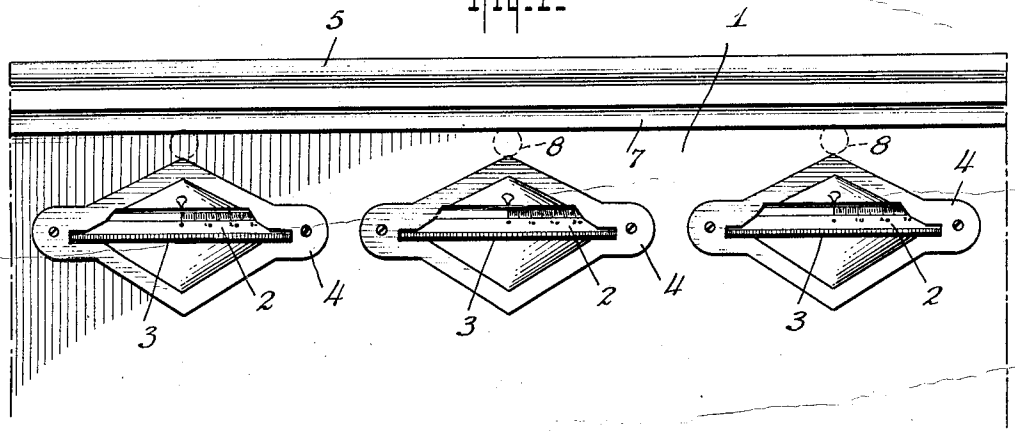
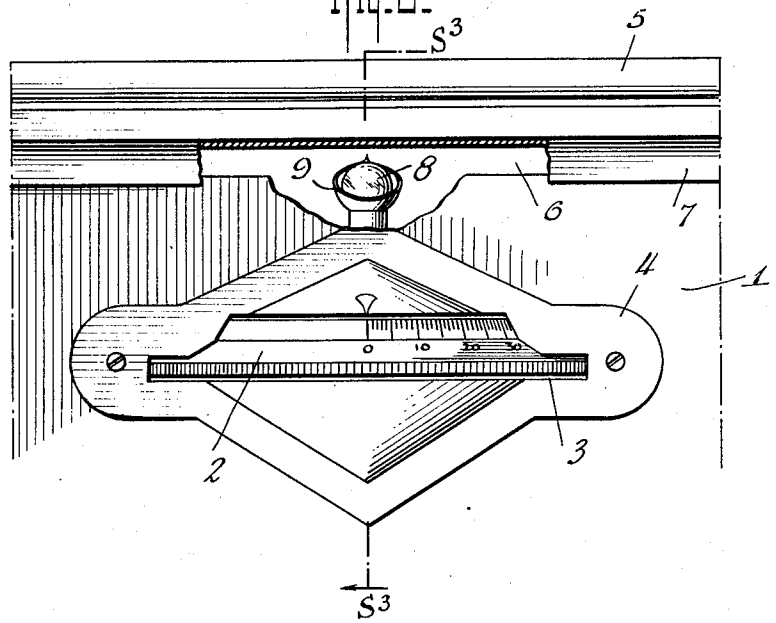


Fig. 2.



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Fig. 3.

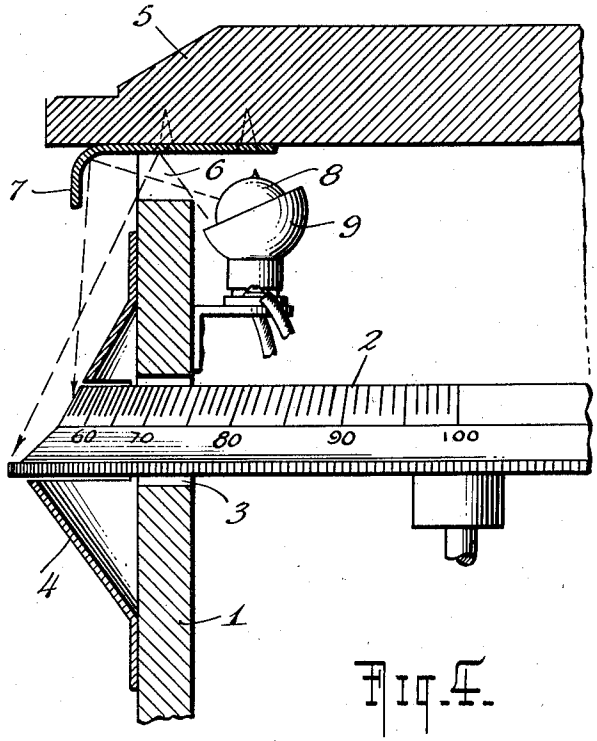
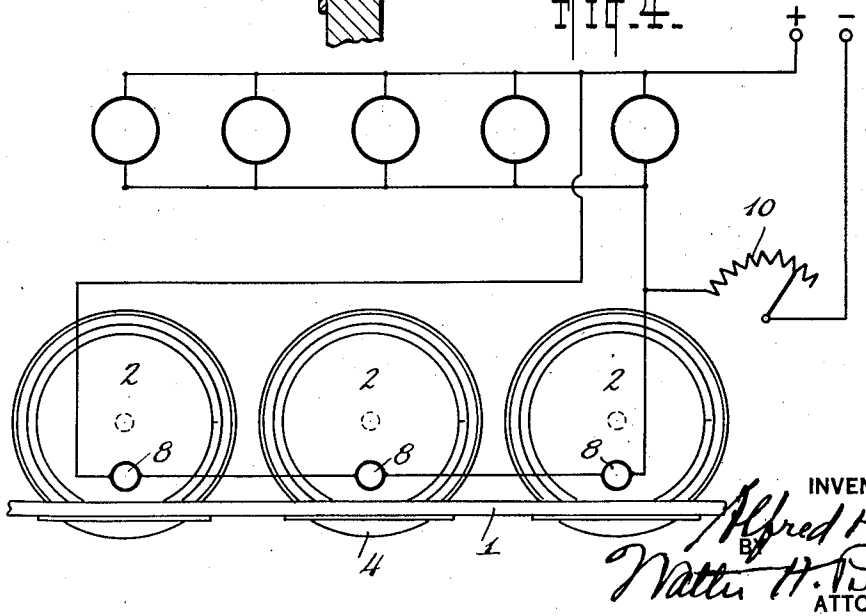


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALFRED HENRY GREBE, OF HOLLIS, NEW YORK.

ILLUMINATING DIAL.

Application filed May 28, 1925. Serial No. 33,425.

My invention, while not limited in its application to any particular class of apparatus, is specially adapted for use with radio receivers, as an aid to the user in reading the scales of the control dials.

It is common practice, in the average home, to place the radio receiver at such distance from a window or a lamp as to make it difficult to read the dial scales and in adjusting the dials to tune the set to various broadcasting stations, considerable inconvenience is experienced.

In order to remedy this difficulty, the present invention is designed to provide a simple and effective means of illuminating the panel of the set and particularly the scales of the control dials to enable the user to read the same at a glance.

The invention furthermore contemplates the use of the source of light employed to illuminate the control dials, as a tell-tale for the vacuum tubes of the set. This is accomplished by connecting the dial lamp or lamps in circuit with the tubes so as to be simultaneously controlled by the tube rheostat.

A construction suitable for carrying my invention into effect is illustrated in the accompanying drawings but I do not wish to be understood as limiting myself to the same, as various changes may be made therein without departing from the spirit and scope of the present invention.

In the drawings—

Fig. 1, is a view of the upper portion of a radio receiver showing the control dials of the variable tuning elements;

Fig. 2, is a similar view on an enlarged scale of one of the dials with portions of the cabinet broken away to show the dial lamp;

Fig. 3, is a cross sectional view on an enlarged scale, taken on the line s^3, s^3, of Fig. 2, and

Fig. 4, is a circuit diagram showing the dial lamps connected in the tube filament circuit to be controlled by the tube rheostat.

Referring now to the drawings, 1 represents a portion of the front panel of a "synchrophase" receiver—a type of radio set in which the control dials 2, 2, 2, are mounted in the rear of the panel, with the scaled peripheral faces presented through panel slots 3, 3, etc. Ornamental escutcheons 4 are shown encircling the projecting portions of the dials 2, and are employed only for the purpose of improving the appearance of the panel.

Preferably at the point between the top of the panel and the underside of the cover 5, of the receiver cabinet, an opening 6, is formed for the passage of light from within the cabinet, which is directed downward by means of a reflector 7, upon the projecting dial scales, to illuminate the same for convenient reading.

The source of light for illuminating the dials is shown as a series of small electric bulbs 8, mounted on the rear face of the panel and preferably arranged in centered relation over each dial. Reflectors 9, on each bulb, serve to throw the light toward the main reflector 7, which is secured to the underside of the cover of the cabinet and is shaped to direct the light downward upon the dial scales.

By centering the lamps 8, over the dials, an intense glow is directed upon the center of each dial scale, where the reading is ordinarily taken. The reflector 7 is intentionally shaped to shield the light opening from view, so as to avoid an objectionably brilliant glare from the panel of the set, which is sufficiently illuminated by the less direct rays of light from the several lamps.

If preferred, the dial scales only may be illuminated, by reducing the continuous light passage to a series of short slots or so shaping the main reflector as to block the light and concentrate it on the dial scales.

As shown in Fig. 4, the dial lamps are connected in series multiple relation in the vacuum tube circuit and thus arranged, under the control of the tube filament rheostat 10, serve as tell-tale lights for the tubes, as will be apparent.

As the operation and many important advantages of the invention will be evident from the foregoing, it will be unnecessary to further describe the same.

Having thus described my invention, what I claim is:

1. An illuminating system for the dial adjusters of radio receiving apparatus, comprising a cabinet structure having a front panel, and a hinged top arranged to normally lie in a horizontal position spaced from the top edge of said front panel forming a horizontal passage, a plurality of rotatable dial members projecting through said front panel and beyond the plane thereof, an incandescent lamp positioned behind said panel adjacent each of said rotatable dial members, and a metallic reflector carried by

the lower face of said hinged top and arranged to extend beyond the plane of said front panel for a distance proportioned to the distance to which said rotatable dial members project beyond the plane of said panel, whereby the rays of light from each of said incandescent lamps are diverted from said horizontal passage substantially beyond said panel and reflected upon said rotatable dial members for illuminating said dial members.

2. An illuminating system for electrical tuning apparatus comprising a cabinet structure including a hinged top, and a front panel terminating in an edge normally spaced from said hinged top, a rotatable dial lying in a horizontal plane and having a portion of its edge extending beyond the plane of said front panel, an incandescent lamp supported immediately above said rotatable dial within said cabinet structure, a reflector for directing the light rays from said incandescent lamp upwardly against said top, a light reflector and shield secured to said top immediately over the edge of said front panel in a position for receiving and reflecting said light rays to a position upon the edge portion of said rotatable dial which extends beyond the plane of said front panel for illuminating said rotatable dial.

ALFRED HENRY GREBE.