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DIAL ALONG WHICH A POINTER IS MOVABLE, MORE PARTICULARLY TUNING DIAL FOR RADIO APPARATUS

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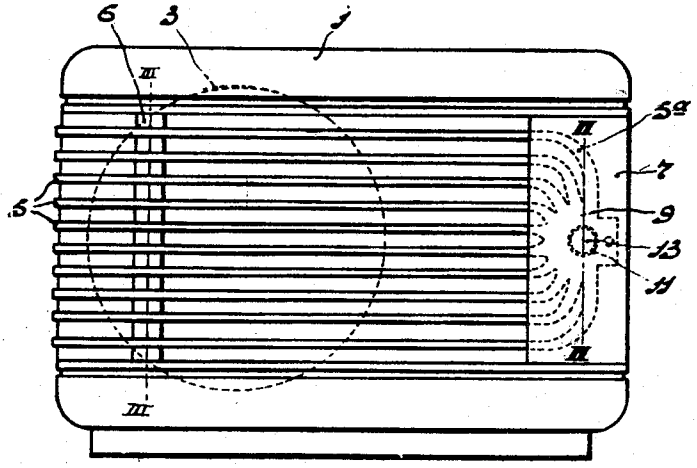

Fig. 1

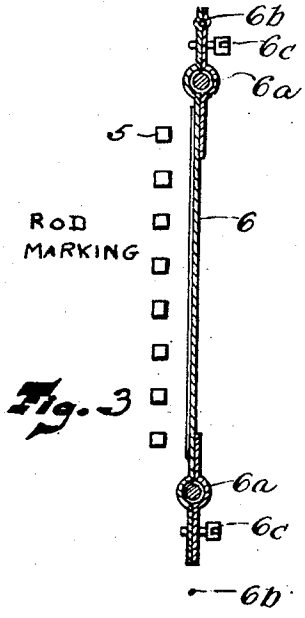

Fig. 3

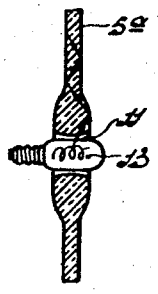

Fig. 2

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DIAL ALONG WHICH A POINTER IS MOVABLE, MORE PARTICULARLY TUNING DIAL FOR RADIO APPARATUS

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4 Claims. (Cl. 116—124.1)

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The invention relates to dials, more particularly tuning dials for radio-apparatus, wherein the dial marks are provided on a translucent carrying member located approximately in one plane and illuminated by laterally transmitted incident rays which are transmitted along rod-like portions of the said member, a pointer being movable along the dial. In the case of radio-receivers the translucent carrying member is usually constituted by a glass plate on which the marks—the names of transmitting stations and/or the wavelength graduations—are printed.

Due to the comparatively large dimensions of the dial it is not easy to design an aesthetically pleasing construction for the radio-receiver cabinet, wherein the dial is arranged so as to permit of being easily glanced over, more particularly if comparatively small apparatus are concerned. Attempts have already been made to solve this problem by mounting the dial in front of the conventional loudspeaker and by thus utilizing part of the space required for the loudspeaker opening in the front panel of the apparatus at the same time for the accommodation of the said dial. In this event, however, the dial plate is required to pass the sounds from the said speaker, which may be achieved by providing apertures in the said carrying member. In general, however, these apertures will be located in the path of the light thrown via the side-face or faces into the dial plate and thus prevent the plate from being uniformly lighted.

A construction is known wherein the translucent carrying member of the dial marks is constituted by a plurality of separate glass strips each provided with at least one illumination lamp. The large number of illumination lamps required in this case constitutes a serious disadvantage of this construction.

The present invention provides a solution which obviates the said disadvantages and which ensures a pleasing aesthetical effect. According to the present invention, the member on which the marks are provided consists of a plurality of rods which, at least at one end, are curved towards a central point at which the illumination lamp is located. The light emitted by this lamp is transmitted, in accordance with a known principle through the rods, follows the curvature of the latter and reaches the straight portions of the rods on which the dial marks are provided. One common illumination lamp consequently may suffice for all the rods although it is also possible to provide a lamp at each end of the

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grid formed by the rods. The lighted grid gives a beautiful aesthetical effect.

In one preferably utilized embodiment the member carrying the marks is constituted by a substantially flat plate in which slits are provided which extend in the direction of the movement of the pointer and the ends of which are curved towards the illumination lamp, transparent artificial resin being a suitable material for manufacturing this plate. The use of this material leads to easier manufacture and to a reduced risk of breakage with respect to the use of glass.

The invention will be explained more fully with reference to the accompanying drawing wherein

Fig. 1 represents a front-view of a radio-apparatus wherein a dial according to the invention is used.

Fig. 2 shows a detail represented as a cross-section taken on the line II—II of Fig. 1.

Figure 3 shows a section in elevation of the rods and the pointer taken along the line III—III of Figure 1.

The radio-receiver represented in Fig. 1 is mounted in a, for example moulded, cabinet 1 the front of which is open for the greater part and is covered by a cloth. Behind the cloth is located a loudspeaker opening 3, whereas in front of the cloth is provided a dial which essentially consists of a plurality of rods 5 of transparent artificial resin which are located in one plane and on which the dial marks—names of stations and small blocks for indicating the tuning—are provided. A pointer 6 is arranged behind the rods 5 so as to be movable along the parallel rods 6—*a* by means of a conventional cable 6—*b* attached to the said pointer and to a knob (not shown). The cord 6—*b* is adjustable relative to the rod 6 when the set screw 6—*c* is loosened. The ends 5*a* of the rods 5 are curved and are hidden behind the portion 7 of the front-panel of the cabinet 1. The ends 5*a* of the rods join to form a substantially semi-circular plate 9 in the centre of which an aperture 11 is provided in which an incandescent lamp 13 is arranged. The rods 5 and the plate 9 are preferably moulded to form a unit which exhibits the shape of a flat plate with open spaces.

The light emitted by the dial illumination lamp 13 is transmitted into the thickest portion of plate 9 and passes through the curved ends 5*a* on to the straight portions of the rods 5 so that the marks provided thereon are lighted from the interior of the straight portions in the manner known in the optical art. Some light also passes

through the lateral surfaces of the rods to the exterior owing to which the beautiful effect of a lighted grid of rods is obtained. The rods 5 may be comparatively thin, owing to which thinness they cover only a comparatively small portion of the surface area of the loudspeaker opening so that the sound coming from the loudspeaker can pass through the dial between the said straight portion 5 without appreciable attenuation.

The thickness of the plate 9 in the proximity of the illumination lamp 13 preferably increases to form a hub-shaped portion separating it from the said lamp, as is shown in Fig. 2. In consequence thereof the plate 9 receives from the lamp 13 a larger amount of light than would be the case with a completely flat plate. This is advantageous for obtaining sufficient light in those portions of the rods 5 which are remote from the lamp 13.

Instead of being straight the rods 5 may also be curved, for example according to a nearly complete circle, the dial portion in which the lamp is provided being preferably covered in this case by a sector-shaped portion of the front-panel.

Although, as appears from the above, the invention may be applied in the first place to radio-apparatus, the advantages obtainable with it may also be important for other apparatus, for example measuring apparatus, whilst if the dial is not arranged in front of the loudspeaker the aesthetic effect yet retains its value.

What I claim is:

1. A tuning dial for radio apparatus, which comprises a grid-shaped translucent light diffusing carrying member formed with a plurality of spaced apart parallel rod portions having marks thereon, an illumination lamp member, and a pointer member, said rod portions respectively being joined at one end to form a common central portion of said grid-shaped member and having an aperture, said lamp member being positioned in said aperture so as to transmit light to said portions and incident light rays along said rods to light said rod portions thereby to cause said marks to become conspicuous, said pointer member mounted at right angles to said rod portions, and means to move said pointer parallel to said rod portions.

2. A tuning dial for radio apparatus, which comprises an approximately flat grid-shaped translucent light diffusing carrying member of artificial resin formed with a plurality of spaced apart parallel rod-like portions having marks thereon, an illumination lamp, and a pointer, said rod-like portions respectively being joined at one end thereof to form a common central portion having an aperture, said lamp being positioned in said aperture so as to transmit incident light rays along said rod-like portions to light said rod-like portions to cause said marks to become conspicuous thereby, said pointer being mounted at approximately right angles to said rod-like portions, and means to move said pointer parallel to the said member.

3. A tuning dial for radio apparatus including a loud speaker opening, which comprises an approximately flat grid-shaped translucent light diffusing carrying member of artificial resin formed with a plurality of spaced apart parallel rod-like portions provided with marks and positioned in front of said opening, said rod-like portions respectively being joined at one end to form a common central portion having an aperture, an illumination lamp member positioned within the said aperture so as to transmit incident light rays along said rod-like portions to light said rod-like portions to cause said marks to become conspicuous thereby, said common portion increasing in the thickness in the vicinity of the said lamp member, a pointer member mounted at approximately right angles to the said rod-like portions, and means to move said pointer parallel to the said member.

4. A tuning dial for radio apparatus including a loud speaker opening, which comprises an approximately flat grid-shaped translucent light diffusing carrying member formed with a plurality of spaced apart rod-like portions, said portions being provided with marks and being positioned in front of said speaker opening, said rod-like portions being respectively joined at one end to form a common central portion having an aperture, said common portion increasing in thickness with decreasing distance from the said aperture, an illumination lamp so positioned at the said central portion so as to transmit incident light rays along said rod-like portions to light said rod-like portions to cause the said marks to become conspicuous thereby, a pointer mounted at approximately right angles to said rod-like portions, and means to move said pointer in front of said loud speaker opening and parallel to the said marked rod-like portions.

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