March 26, 1940. G. B. WILLIAMS 2,194,627

LUMINOUS DIAL

Filed June 5, 1939

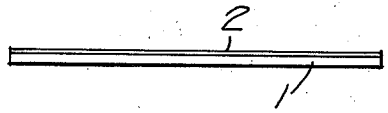


FIG. 1.

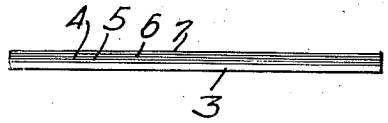


FIG. 2.

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LUMINOUS DIAL

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Application June 5, 1939, Serial No. 277,421

4 Claims. (Cl. 250—72)

My invention relates to improvements in dials such as watch, telephone dials and other indicating surfaces, and the object of the invention is to provide a luminous dial which will not change colour or fade and the life of which is therefore extended almost indefinitely and it consists of a base provided with a vitreous surface, and luminous vitreous enamel applied to such vitreous surface and fused thereto and containing radio active material.

Fig. 1 is an edge view of my luminous dial.

Fig. 2 is an alternative form of my luminous dial.

In the drawing like characters of reference indicate corresponding parts in the different views.

Referring to Fig. 1, 1 is a dial base formed of vitreous material or glass. 2 is a layer of luminous vitreous material in which is incorporated radio active material and which is applied to the surface of the base preferably by spraying. The base and layer are then fused together by any suitable means.

Referring to Fig. 2, 3 is the metal base of the dial to which is applied preferably two layers 4 and 5 of white vitreous enamel over which is placed, preferably two layers 6 and 7 of luminous enamel containing radio active material. The layers are fused on separately layer by layer.

If desired the metal may be provided with a bonding layer consisting of vitreous enamel applied directly to the base and fused thereto and to which white vitreous enamel is applied and fused, and over the layer of white vitreous enamel a layer of luminous vitreous enamel containing radio active material is applied and fused.

On the completed dial may be inscribed any desired indicating characters or decorations or an opaque background may be applied to the face of the dial and so treated as to leave exposed those luminous parts of the dial forming the indicating characters of the dial.

What I claim as my invention is:

1. A dial comprising a base body provided with a vitreous surface, and a layer of vitreous enamel containing radio active material fused to the vitreous surface of the base.

2. A dial comprising a base of vitreous material, and a layer of luminous vitreous enamel containing radio active material fused to the base.

3. A dial comprising a metal base, a layer of vitreous material applied to the base, and a layer of luminous vitreous enamel containing radio active material applied to the aforesaid layer, the whole being fused together.

4. A dial comprising a metal base, a bonding layer applied to the aforesaid base and fused thereto, a layer of white vitreous enamel applied to the bonding layer and fused thereto and a layer of luminous vitreous enamel containing radio active material applied to the white enamel layer and fused thereto.

GEORGE BERTRAND WILLIAMS.