June 17, 1952 A. ARVIDSSON 2,601,081

MECHANICAL ARRANGEMENT OF LIGHTING VARIATORS

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Fig.1

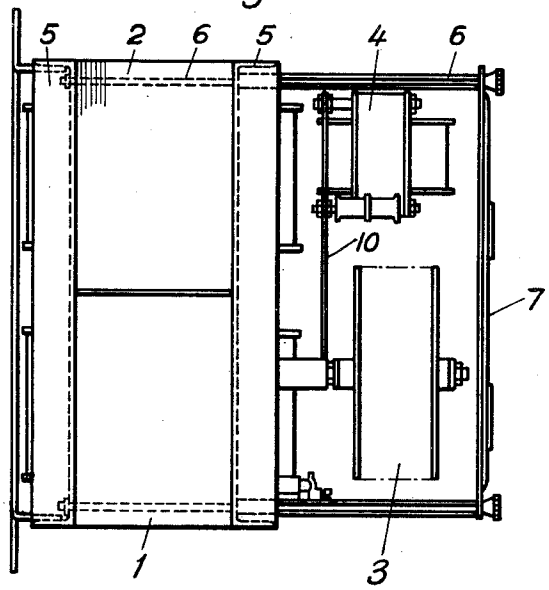


Fig.2

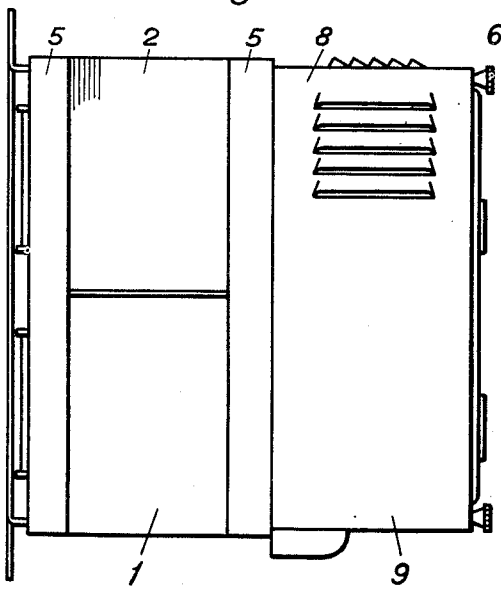
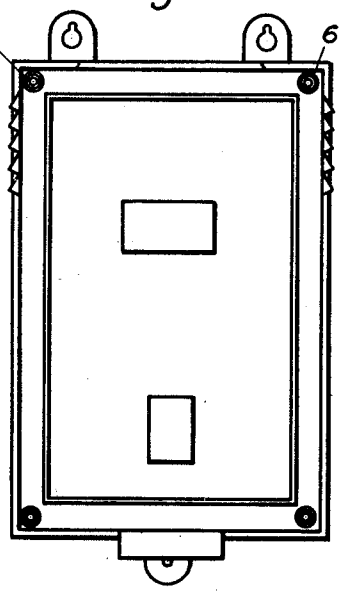


Fig.3



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MECHANICAL ARRANGEMENT OF LIGHTING VARIATORS

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4 Claims. (Cl. 175—298)

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In lighting variators using direct current saturable reactors—hereinafter referred to as "transductors"—care must be taken that the individual parts are mounted together in a suitable manner. Since especially in stage lighting a large plurality of such lighting variators is desired, they should take up as little room as possible, they should be easy to be mounted and ventilated, and cheap.

Hitherto, the individual parts, i. e. the transductor, dry plate rectifier, and auxiliary transformer have been arranged side by side on a common base plate and covered entirely by a shell casing, so that the unit has taken a great deal of room. The leakage field of the transductors and the resonance phenomena of the sheet upon the variations of the field, in many cases, have given rise to noises, which is especially troublesome in the use of the lighting variators in stage lighting. Furthermore the ventilation was not effective.

The object of the present invention is to overcome these disadvantages.

It is a feature of the invention, that the transductor forms the support both for the individual parts of the lighting variator and for such parts that are intended to partly or completely cover only the former parts. For this purpose, on one hand the corner bolts of the iron core of the transductor are elongated towards the front and support the covering members for the other individual parts, and, on the other hand, the clamping frames of the transductor are used for mounting the variator and as a support for the resting individual parts. Due to the fact, that the core of the transductor itself is not covered by a casing, the ventilation becomes more effective and the resonance phenomena are avoided. Also the other aforementioned requirements will be met by the arrangement according to the invention.

One embodiment of the mounting of the lighting variator according to the invention is shown on the accompanying drawing.

In Figs. 1 and 2, the lighting variator is shown in a side elevation having only a front plate, and a front plate together with a side frame respectively, while Fig. 3 shows a front elevation of the variator.

1 designates a transductor having an iron core 2, 3 is a dry plate rectifier, 4 an auxiliary transformer. The iron core 2 of the transductor is clamped between two clamping frames 5 by means of corner bolts 6, which are elongated towards the front to support either a front plate 7 or such front plate and a side frame 8, which thus form a casing 9 for the individual parts except the iron core of the transductor. On the front plate 7 measuring instruments or the like

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may be mounted. The side frame is provided with ventilating openings. The backward clamping frame 5 has fixing eyes, and on the forward clamping frame 5 a support 10 is provided for the rectifier 3 and the auxiliary transformer 4.

I claim as my invention:

1. A lighting variator assembly for a theatre illuminating system, comprising a transductor, dry plate rectifier means connected to said transductor, auxiliary transformer means connected to said rectifier means, and means for covering said dry plate rectifier means and said auxiliary transformer means, said rectifier and transformer means being fixed to the core frame of said transductor, and said covering means being supported by the fixing means of the core frame of the transductor.

2. A lighting variator assembly for theatre illuminating systems, comprising a transductor with elongated core bolts, dry plate rectifier means connected to said transductor, auxiliary transformer means connected to said rectifier means, and means for covering the front face of said rectifier and transformer means, said rectifier and transformer means being fixed upon the core frame of the said transductor and the covering means being supported by the said elongated bolts of the transductor core.

3. A lighting variator assembly for theatre illuminating systems comprising, a transductor with elongated core bolts, clamping frames for the core of the transductor, a front cover plate spaced from the transductor and supported by said elongated bolts, a support carried on one of the clamping plates of the transductor, dry plate rectifier means and auxiliary transformer means carried on said support between the transductor and said front cover plate.

4. A lighting variator assembly according to claim 3 comprising side cover pltaes secured to and supported by said front cover plate.

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