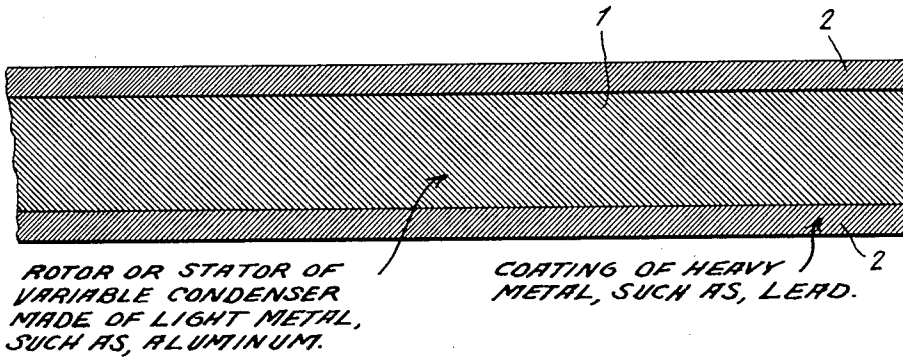


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VARIABLE ELECTRIC CONDENSER
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VARIABLE ELECTRIC CONDENSER

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4 Claims. (Cl. 175—41.5)

This invention relates to electric condensers. More particularly, the invention relates to electric condensers of the rotary or variable type such as those especially adapted for use in radio receiver sets housed together with a loudspeaker.

In practical use of receiver apparatus which is mounted in the neighborhood of a loudspeaker or which is built together with the latter to form a constructional unit, it has been found that the condenser plates of the usually employed light metal condensers are caused to oscillate by the acoustic waves issued by the loudspeaker, whereby vibrations are occasioned in the electric circuit and react in turn upon the loudspeaker. These mechanico-acoustic feed backs lead to additional sound production of the set when in use and often preclude the normal and satisfactory operation of the set.

In order to obviate this inconvenience the stator packet or system of the condenser may be reinforced or stiffened by the aid of strips disposed on the plates, and the rotor packet may be reinforced by bolts connecting the constituent condenser plates at various places. Such a scheme is comparatively expensive and it would be hard to fit the same to an existing condenser after disturbances of the kind here concerned have been discovered in the receiving set.

According to this invention the acoustic feed-backs are suppressed by combining the condenser plates with heavy metals, for instance, by lead deposition or plating by the Schoop spraying method or else by galvano-plating. These processes offer the advantage that the plates are made with a uniform and homogenous surface so that capacity fluctuations such as would be caused by strips or the like fitted superficially on

the plates and for which it would be hard to precalculate results, will not arise. It is also feasible to take this circumstance into consideration and to employ light metal which is lined or plated with a heavy metal in the manufacture of the condensers as the material from which to manufacture the condensers.

The drawing illustrates an exemplified embodiment of the basic idea of the invention. The condenser plate shown in section 1 which may be of aluminum or any other suitable material and which may be either a stator or a rotor plate, is provided with a heavy metal lining 2 enveloping the plate all around. In some cases it is only necessary to apply the heavy metal to one side of the condenser plate.

What we claim is:

1. A plate for a variable condenser having a layer of metal of sufficient density and thickness applied to a surface thereof to prevent mechanical vibrations.

2. A plate for a variable condenser having a layer of lead of sufficient thickness applied to a surface thereof to prevent mechanical vibrations.

3. In a variable condenser, a plate member of light metal serving as one of the stator elements of the condenser, and a layer of heavy metal applied to a surface of said plate member to prevent mechanical vibrations thereof.

4. In a variable condenser, a plate member of light metal serving as one of the rotor elements of the condenser, and a layer of heavy metal applied to a surface of said plate member to prevent mechanical vibrations thereof.

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