April 25, 1939. W. SCHEPPMANN 2,156,099

CONDENSER

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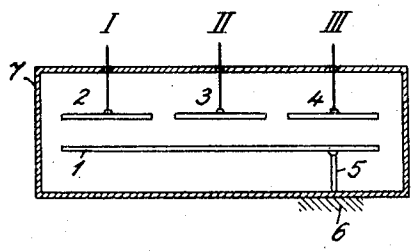


Fig.1

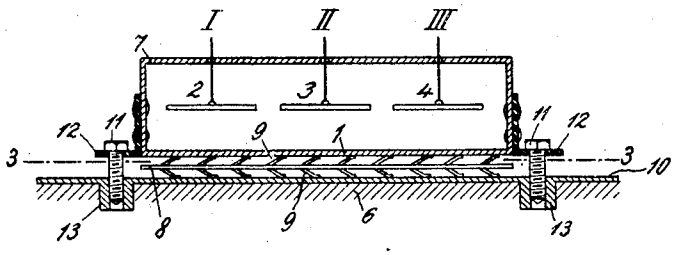


Fig.2

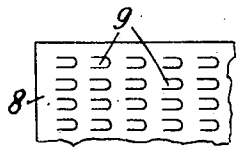


Fig.3

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CONDENSER

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2 Claims. (Cl. 175—41)

It is well known to comprise several condensers in a casing. Such arrangement, designated as multiple condenser, is possible if the circuits including these individual condensers are such that the condensers have each a condenser plate which is at the same potential as one of the plates of the other condensers. Such multiple condensers have the advantage of requiring but little space. In electrical relation, however, they have the disadvantage that undesirable coupling effects arise between the circuits. These coupling effects are the more detrimental the higher the frequncy of the currents and the smaller the capacity of the condensers.

The invention has for its object to avoid such coupling effects and to such end consists in certain features of novelty that will appear from the following description and be particularly pointed out in the appended claims, reference being had to the accompanying drawing in which

Fig. 1 is a diagrammatic sectional view of a form of the known arrangements, Fig. 2 is a partially diagrammatic sectional view illustrating an embodiment of the invention, Fig. 3 shows a fragmentary section on line 3—3 of Fig. 2.

The arrangements represented in Figs. 1 and 2 comprise three condensers I, II, III which have a plate 1 common to them and also have individual plates 2, 3, 4. The plates 1 to 4 are contained in a casing 7.

In the arrangement shown in Fig. 1 plate 1 is connected to casing 7 by a conductor 5. Casing 7 is earthed, as indicated at 6. As a result the currents flowing to the condensers I, II, III have a path common to them, namely conductor 5. In addition also plate 1 constitutes current paths common to these condensers. This is the case also if conductor 5 is not joined to a lateral portion of plate 1, as shown, but to a centre portion thereof. All such common paths cause undesirable coupling effects to occur between the several circuits in which the condensers are included.

In order to avoid such coupling effects the invention instead of using only one conductor or path 5, Fig. 1, provides for a plurality of current paths connecting plate 1 to earth, the idea being to allocate a separate current path to each condenser I, II, III.

In the example here shown such separate paths are constituted by a plate 8 and contact tongues 9 of this plate which are arranged to interconnect plate 1 and a plate 10 earthed as indicated at 6.

In the case represented plate 1 is a wall of the casing 7. The tongues 9 are held in contact with plates 1 and 10 by head screws 11 whose heads bear against insulating flanges 12 of the casing 7 and which are screwed into sockets 13 formed integral with plate 10.

Plate 1 may also be separate from the casing 7, being however preferably arranged in close contact therewith. Furthermore, plate 1 may consist of a set of plates or may be constituted by a foil fitted to casing 7.

Plate 8 is preferably of elastic sheet metal in order that the tongues 9 which likewise should be elastic may be produced therefrom by a punching and bending operation.

What is claimed is:

1. A multiple blocking capacity arrangement for use at very high frequencies, which comprises a condenser unit having a casing one portion of which constitutes a common condenser plate and having a plurality of individual condenser plates each mounted in fixed cooperative relation with respect to said common plate to form a multiple condenser unit, a grounded conductive sheet separate from said unit and serving as a support therefor, means for mounting said condenser unit on said conductive sheet with said portion of said casing adjacent said sheet, and an interconnecting plate clamped between said sheet and said portion of said casing and having on each side thereof a plurality of closely spaced resilient tongues, said tongues elastically contacting said sheet and said portion of said casing to provide a plurality of direct connections therebetween.

2. A multiple blocking capacity arrangement for use at very high frequencies, which comprises a condenser unit having a casing one portion of which constitutes a common condenser plate and having a plurality of individual condenser plates each mounted in fixed cooperative relation with respect to said common plate to form a multiple condenser unit, a grounded conductive sheet separate from said unit and serving as a support therefor, means for mounting said condenser unit on said conductive sheet with said portion of said casing adjacent said sheet, and means comprising a plurality of resilient tongues for providing a plurality of direct connections between said sheet and said portion of said casing.

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