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AMPLIFIER FOR CARRIER FREQUENCY SYSTEMS

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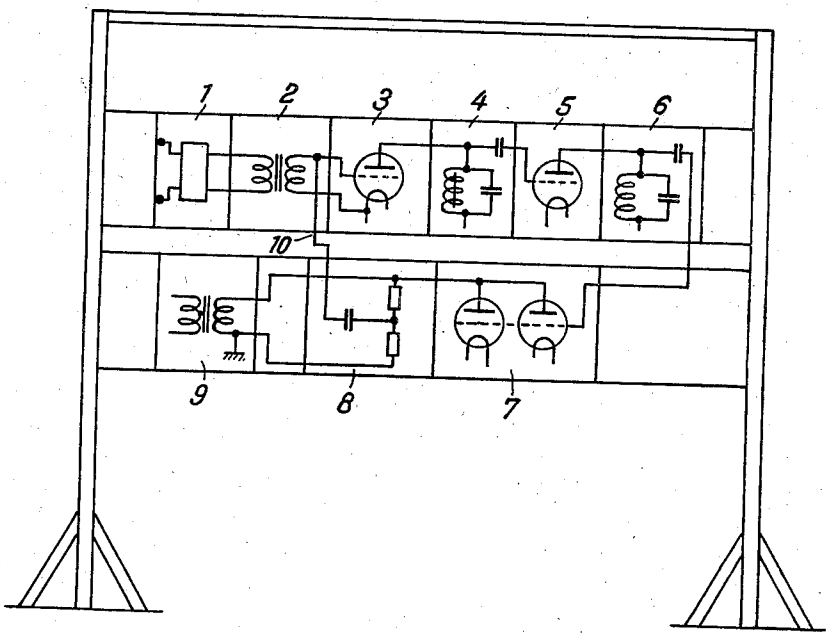

Inventor:
Heinz Hannemann
by E. O. Thierry
Attorney.

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AMPLIFIER FOR CARRIER FREQUENCY SYSTEMS

Heinz Hannemann, Berlin, Germany, assignor to C. Lorenz Aktiengesellschaft, Berlin-Tempelhof, Germany, a company

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1 Claim. (Cl. 179—171)

In carrier frequency transmission systems, especially for radio, many amplifiers are used which amplify signals over a relatively wide frequency band. Usually in adjusting such sets to a particular amplification characteristic use is made of a counter or negative feedback coupling which feeds a predetermined voltage into two tube stages.

In general the individual stages for such amplifier units (tube oscillator circuits, etc.) are constructed in separate boxes and these individual parts are then mounted in rows on racks.

The disclosed invention proposes that, in such amplifiers, the boxes containing stages be so arranged that the connections for the feedback voltage be as short as possible. Preferably, two racks one over the other should have their respective stage boxes oriented to allow the current in one rack to oppose that in the other. With this arrangement the connection for feedback voltage is made from the end of one rack to the beginning of another and is accordingly as short as possible.

My invention will be more readily understood when considered in conjunction with the following description and drawing, which illustrates the material of the invention in its application to an amplifier.

The special feature characterizing the invention is that the said connection can produce no distortion, and that additional feedback of high-frequency voltage from another stage is not possible.

Referring to the diagram, the elements of the amplifier are built in separate boxes according to the above-mentioned method—thus in box 1 is an equalizer stage, in box 2 the input transformer of a tube stage in box 3, the plate circuit (box 4) of this tube is coupled to a second tube stage in box 5, box 6 contains the coupling element for a third tube stage 7, in the output of which the plate circuits are located in boxes 8 and 9.

The feedback voltage is supplied from the output of tube 8 to the input of tube 3, and thus the connecting lead 10 between these two stages is made as short as possible.

What is claimed is:

An amplifier structural arrangement comprising a supporting rack, a carrier frequency amplifier having an amplifier circuit comprising separate units containing respectively an equalizing circuit, an input, a plurality of amplifiers, and an output circuit, said units being supported on said rack in the order named and means intercoupling said separate units, and a feedback circuit comprising a plurality of other units comprising an amplifier circuit, and at least one output circuit, said other units being arranged on said rack immediately adjacent said amplifier units in a reversed order with respect to said amplifier units and means intercoupling said units, means interconnecting said amplifier output circuit and said feedback circuit amplifier, and said feedback circuit output and said amplifier input circuit.

HEINZ HANNEMANN.