

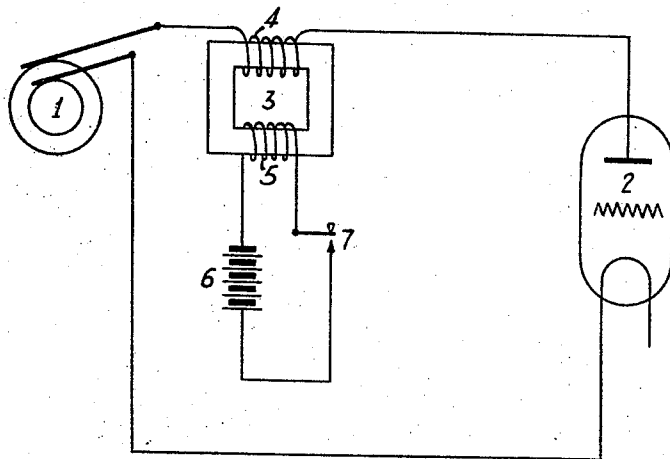
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CONTROLLING ARRANGEMENT FOR TUBE SENDERS SUPPLIED WITH ALTERNATING CURRENT

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CONTROLLING ARRANGEMENT FOR TUBE SENDERS SUPPLIED WITH ALTERNATING CURRENT.

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The output of a tube sender may be controlled by controlling the current supplied to the anode circuit. The simplest expedient is to provide in the anode circuit a key-

5 controlled interrupting relay. Another expedient consists in providing in the anode circuit resistance elements which may be short circuited by means of a key. Furthermore, it is well known that a vacuum tube may be provided in the anode circuit, the resistance of this tube being varied by controlling its grid.

In accordance with the present invention, an inductive reactance is provided in the current supply circuit of the tube sender, a variable direct current magnetization being provided for the purpose of controlling the inductance of said reactance. This arrangement may be adapted to telegraphy by varying the direct current between two predetermined values through the agency of a key. Furthermore, the arrangement is applicable to telephony by modulating the magnetizing direct current of the choke coil through the agency of a telephone transmitter, suitable means for intermediate amplification being provided. In the drawing, 1 is the alternating current generator, 2 the sending tube and 3 the controlling choke coil. In this coil, the choke coil winding proper 4 and the direct current magnetizing winding 5 are provided on a common iron core. The direct current magnetizing winding is connected in circuit with a direct current source 6 through a key 7 or through a voice amplifier in the place of the key.

Having described my invention, what I claim is:

1. In a circuit arrangement for controlling the output of a tube sender, a vacuum tube, an alternating current generator and an inductive resistance in the plate circuit of the tube, a direct current circuit coupled to the inductive resistance for magnetizing it, and means for varying the direct current to vary the value of the resistance.
2. In a circuit arrangement for controlling the output of a tube sender, a vacuum tube, an alternating current generator and an inductive resistance in the plate circuit of the tube, a direct current circuit coupled to the inductive resistance for magnetizing it, and a key for varying the current in the direct current magnetizing circuit, so as to vary the alternating current in the plate circuit of the tube.
3. A circuit arrangement for controlling the output of a tube sender supplied with alternating current, in which an inductive resistance is provided in the current supply circuit, the value of said resistance being varied by means of special direct current magnetizing.
4. Arrangement according to claim 3, in which for the purpose of telegraphy, the direct current is varied by means of a key.
5. In combination, vacuum tube means, alternating means for energizing, induction means disposed between the tube means and the alternating means having variable impedance, means for varying the impedance consisting of an energizing means to produce high impedance to alternations in one direction and low impedance in another direction.
6. In combination, vacuum tube means, alternating means for energizing, induction means disposed between the tube means and the alternating means having variable impedance, means for varying the impedance consisting of an energizing means to produce high impedance to alternations in one direction and low impedance in another direction, the direction of low impedance to alternations being the same direction in which the tube means conducts current.
7. In combination, vacuum tube means, alternating means for energizing, induction means disposed between the tube means and the alternating means having variable impedance, means for varying the impedance consisting of an energizing means to produce high impedance to alternations in one direction and low impedance in another direction, the direction of low impedance to alternations being the same direction in which the tube means conducts current, the direction of high impedance being the direction in which the tube means acts as a non-conducting condenser.
8. In combination, vacuum tube means, alternating means for energizing, induction means disposed between the tube means and the alternating means having variable impedance, means for varying the impedance consisting of an energizing means to pro-

duce high impedance to alternations in one direction and low impedance in another direction, the direction of low impedance to alternations being the same direction in which the tube means conducts current, the direction of high impedance being the direction in which the tube means acts as a non-conducting condenser whereby the energization of the tube means may be controlled more efficiently by preventing losses in the alternating means during the unused alternations.

9. In combination, vacuum tube means, alternating means for energizing, induction means disposed between the tube means and the alternating means having variable impedance, means for varying the impedance consisting of an energizing means to produce high impedance to alternations in one direction and low impedance in another direction, the direction of high impedance being the direction in which the tube means acts as a non-conductive condenser.

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