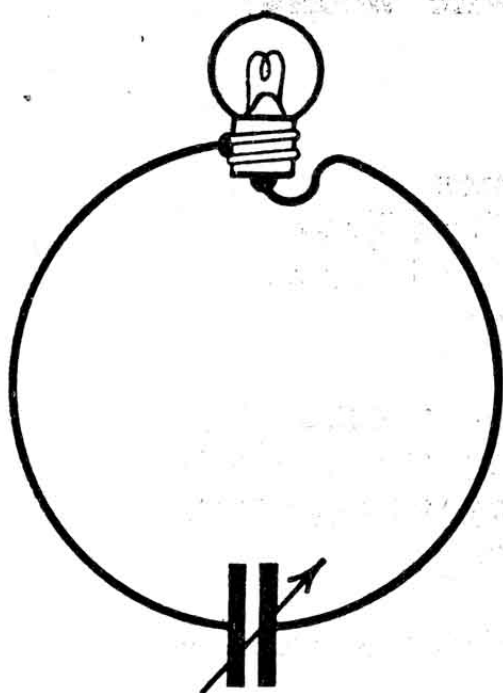


# HIGH FREQUENCY OSCILLATION IN LOW FREQUENCY AMPLIFIERS

Owing to the high mutual conductance of modern output valves, it sometimes happens that trouble arises in low frequency amplifiers due to high frequency oscillation in the power stage. This effect, which is most likely to occur when modern efficient output valves are used in existing gear which does not conform to the most modern practice, or when such valves are used in parallel or push-pull, is not in any way due to faults in the valves, but is a natural result of the increased mutual conductance of up-to-date valves.

High frequency oscillation makes itself apparent as increased anode current and reduced output. In difficult cases it may be traced as follows :



•00005 Mfd.

- (1). By lowering a tuned wire loop, connected to a flash lamp bulb, over the valve connections, when the lamp may light due to induced H.F. currents, if the amplifier be oscillating violently.
- (2). By touching the "grid" terminal with the finger or with a piece of metal when the anode feed current will usually show a sudden change if the valve be oscillating.
- (3). By holding a neon lamp to the grid terminal when the lamp will glow if sufficiently powerful oscillations be present. Care must be taken to check that the grid bias potential will not, of itself, make the lamp glow.

The first test, i.e., lighting of a small glow lamp, is the most reliable indication of H.F. oscillation.

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**Mullard the Master Valve**