



**A HOME-MADE INDUCTORIUM FOR USE IN
DEMONSTRATING MUSCLE-NERVE PHYSIOLOGY**

Frantz W. Ashley, Edmond, Oklahoma

An inductorium suitable for demonstrating the phenomena of muscle

twitch, summation, staircase, and tetanus, may be constructed from an old induction coil, preferably of the type used on the model T Ford.

Since the output of this coil is not adjustable, some provision must be made for varying the strength of the stimulus; this is most easily accomplished by removing the primary coil and core from the case.

The automatic make-and-break should be removed from the top of the coil, then the bottom of the case should be removed, and both of the primary connections cut in two. A sharp tap with a hammer on the protruding end of the core at the top of the case will loosen the primary coil and core so they can be removed.

The case may then be put back together to protect the secondary winding which is easily damaged. The primary is to be connected with a dry cell through a key. The two contacts on one side of the case are the secondary winding terminals and should be connected to opposite ends of the muscle used.

The strength of the stimulus is regulated by placing the primary coil and core on the table beside the case and parallel to its original position; if the stimulus is too great, move the coil away from the case; if too weak, place the coil nearer.

Stimuli with "make" only, or with "break" only may be obtained by short-circuiting the secondary terminals with a key at the proper time. Connectors from dry cells may be soldered to the secondary terminals to facilitate connection.

Tetanus can be demonstrated if some means of rapidly breaking the circuit is available; or the interrupter may be removed from the case and placed on the end of the core as it was originally.

