A UNITIZED ILLUMINATOR-STIMULATOR

FRANCIS A. CARMICHAEL, JR., M.D.*

Kansas City, Missouri

(Received for publication June 2, 1955)

Having been previously inconvenienced and often aggravated by the inconsistency and bulk of such instruments available in various hospitals, the design of the presently described instrument was undertaken.

This instrument has the advantage of combining in one compact, light-weight unit, illuminating source for two self-illuminated retractors or other instruments requiring a source of 0–3 volts AC which is continuously variable through this range. In addition it provides an AC source of sine wave characteristics variable through a range of 0–50 volts, suitable for stimulation of the cortex or peripheral nerves (Fig. 1).

Care has been taken in the mechanical design to insure against any possibility of the application of a current for a purpose for which it is not intended by installing plug-in receptacles in the container which are of different caliber, for the illuminating and stimulating cords.

A glance at the schematic diagram (Fig. 2) shows that the patient is at all times doubly isolated from the 110 v. AC supply by the isolation transformers, to obviate any possibility of electro-trauma. The illumination and stimulation circuits are

* 411 Nichols Road, Kansas City 12, Missouri.
UNITIZED ILLUMINATOR-STIMULATOR

completely separated and are independently fused for further safety. Provisions to eliminate static discharges or sparking are likewise included in the electrical design, the latter being accomplished mainly by adequate direct grounding through a 3-way power cord.

The writer has found this instrument* reliable and extremely useful and convenient.

* This instrument is custom built by Mr. Patrick E. Curran, 7133 Cedar Road, Kansas City 15, Mo. for approximately $190, complete with cords.