

ABSTRACTS

Editorial Comment: A fixed style of presentation for this department of ANESTHESIOLOGY has purposely not been defined. It is the wish of the Editorial Board to provide our readers with the type of abstract they desire. Correspondence is invited offering suggestions in regard to the length of abstracts, character of them, and source of them. The Board will appreciate the cooperation of the membership of the Society in submitting abstracts of outstanding articles to be considered for publication.

WALLS, N. S.: *A New Principle in Circle Absorption Anaesthetic Machines*. *Anaesthesia* 5: 171-174 (Oct.) 1950.

A new principle is described, which diminishes resistance and increases the efficiency of absorption in anaesthetic machines, adaptable for the circle absorption method. This system employs a unidirectional flow of gases through canisters. In addition to the inspiratory breathing bag, there is provided an expiratory bag, of sufficient capacity for tidal respiratory volumes. These bags are placed between the canisters and the valves. The author believes that twin bags with a common diaphragm are an advantage. The effective resistance of the canisters and by-passes is reduced theoretically to a ninth on the average and a sixteenth of what it would be on peaks, according to the square law. By placing the valves near the base piece, the resistance of the tubes is reduced by concertina type of connecting tubes. The soda lime canister itself is corrugated in order to increase the absorption efficiency with unidirectional gas flows and needs not be of standard dimensions because the air space need not hold a tidal volume. N. S. W.

GILLESPIE, N. A.: *Therapeutic Anaesthesia. An Unusual Case*. *Anaesthesia* 6: 11-14 (Jan.) 1951.

An account of an interesting and probably unique attempt to improve a

quinidine-resistant ventricular tachycardia by the administration of anaesthetic drugs. Fourth plane anaesthesia with ether and then with cyclopropane had no effect. Trichloroethylene only increased the cardiac rate. Ephedrine by vein decreased the rate somewhat. The patient's condition was not changed by the procedure. A. L.

RANDALL, L. O.; HAGAN, E., and DE MARTINI, T.: *Anticuraric Action of Phenolic Quaternary Ammonium Salts*. *J. Pharmacol. & Exper. Therap.* 100: 83-93 (Sept.) 1950.

"In a series of 27 compounds, maximal anticuraric activity and minimal toxicity was found for 3-hydroxyphenyldimethylethylammonium bromide, Ro 2-3198. This compound has slight effects on blood pressure and low activity on intestine and other smooth muscles and low anticholinesterase activity. It has equal anticuraric activity but lower toxicity than 3-hydroxyphenyltrimethylammonium bromide, Ro 2-2561. Further ethylation or substitution of heavier groups decreased activity. Anticuraric activity was unimproved by substitution of methyl groups in the phenol ring. It was decreased by substitution of hydroxyl groups in the 2- and 4-positions and substitution of amino, chlorine or methoxy groups for the 3-hydroxyl group." A. A.