

## CONTENTS

## PRESIDENTIAL MESSAGE

- The Achievements of the Past and Challenges of the Future. *John J. Bonica* 705

## EDITORIAL VIEWS

- Pulmonary Compliance in Anesthetized Man. *C. Philip Larson, Jr.* 708

## ORIGINAL ARTICLES

- Volume-Pressure Relations of the Respiratory System of Curarized Infants. *David A. Nightingale and Charles C. Richards* 710
- Carbon Monoxide Accumulation in Closed Circle Anesthesia Systems. *Victoria Middleton, Alan Van Poznak, Joseph F. Artusio, Jr., and Scott M. Smith* 715
- Oxygen Administration by Mask in a Pressure Chamber. *D. G. McDowall, I. McA. Ledingham, I. Jacobson and J. N. Norman* 720
- Blood pH and Plasma Levels of *d*-Tubocurarine. *Ellis N. Cohen, Nancy Hood and Paul Camner* 727
- Inhalation Anesthetics and Permeability of Human Erythrocytes to Monosaccharides. *Nicholas M. Greene* 731
- Effects of Nitrous Oxide-Curare, Ether and Cyclopropane on Post-operative Respiratory Adequacy. *Azmy R. Boutros* 743
- Mechanics of Breathing During Anesthesia. 2. The Influence of Airway Adequacy. *Martin I. Gold and Martin Helrich* 751
- Minimum Alveolar Anesthetic Concentration: A Standard of Anesthetic Potency. *Edmond I. Eger, II, Lawrence J. Saidman and Bernard Brandstater* 756
- Temperature Dependence of Halothane and Cyclopropane Anesthesia in Dogs: Correlation with Some Theories of Anesthetic Action. *Edmond I. Eger, II, Lawrence J. Saidman and Bernard Brandstater* 764
- Equipotent Alveolar Concentrations of Methoxyflurane, Halothane, Diethyl Ether, Fluroxene, Cyclopropane, Xenon and Nitrous Oxide in the Dog. *Edmond I. Eger, II, Bernard Brandstater, Lawrence J. Saidman, Michael J. Regan, John W. Severinghaus and Edwin S. Munson* 771
- Performance of Lungs and Bronchi During Inhalation Anesthesia. *Frank J. Colgan* 778
- Forearm Venous and Arterial Responses to Halothane and Cyclopropane. *John A. Caffrey, John W. Eckstein, William K. Hamilton and Francois M. Abboud* 786

(Continued on page 4)

## CONTENTS

## REVIEW

- Some Aspects of Fluid and Electrolyte Metabolism in the Brain. *Eugene D. Robin* 791

## ANNALS OF HISTORY

- Paracelsus and His Contribution to Anesthesia. *J. S. Gravenstein* 805

## SPECIAL ARTICLE

- Hyperbaric Oxygenation: Anesthesia and Drug Effects. From Fundamentals of Hyperbaric Medicine (NAS-NRC) 812

## CURRENT COMMENT

- Flammability of Fluroxene. *Joseph F. Patterson, John G. Adams, Jr., and Carol G. Johnson* 825
- Intravenous Regional Anesthesia of the Upper Extremity. *Frank A. Manthey* 827
- Methoxyflurane Solubility in Plastics. *Edwin S. Munson and Edmond I. Eger, II* 828
- Human Cerebrospinal Fluid Osmolality at 37°C. *Norma Boone Goldberg, Vincent J. Sawinski and Allen Fred Goldberg* 829
- Gadgets.** Safety Modification of the Bennett Tracheostomy Circle. *Jack Bauman and Grant Fletcher* 830
- Modified Endotracheal Tubes for Bronchography in Children. *Lionel Glassman* 831
- A Nerve Stimulator for the Continuous Monitoring of Muscle Relaxant Action. *Ronald L. Katz* 832
- Case Report.** Residual Curarization. *William N. Hershey, Eric A. Wahrenbrock and Rudolph H. de Jong* 834

## THE ANESTHESIOLOGIST'S BOOKSHELF 835

## LITERATURE BRIEFS 838