CONTENTS

NUMBER 1, JANUARY, 1957

I. The Metabolic Conversion of 5,5-Diphenyl Hydantoin to 5-(p-Hydroxyphenyl)-5-Phenyl Hydantoin. Thomas C. Butler .......................... 1

II. Some Liver Enzymes During Dicumarol Treatment and Vitamin K-Deficiency. Jack Peter Green, Ebbe Sondergaard and Henrik Dam .......... 12

III. The Effect of Disulfiram on the Action and Metabolism of Paraldehyde. M. L. Keplinger and J. A. Wells .......................... 19

IV. Pharmacology of Ethyl - 1 - (4 - Aminophenethyl) - 4 - Phenylisonicotinate, Anileridine, a New Potent Synthetic Analgesic. Peter D. Orahovats, Edward G. Lehman and Edward W. Chapin .................... 26

V. The Passage of Thiopental into Brain. Lester C. Mark, J. J. Burns, C. Ines Campomanes, S. H. Ngai, Natalie Trousos, E. M. Papper and Bernard B. Brodie .......................... 35

VI. Antagonism Between a Bis-Quaternary Oxamide, WIN 8078, and Depolarizing and Competitive Blocking Agents. Alexander G. Karezmar .......................... 39

VII. Alterations in Somatic Afferent Transmission Through the Thalamus by Central Mechanisms and Barbiturates. Ellen Eva King, Robert Naquet and H. W. Magoun .......................... 48

VIII. Spectrophotometric Estimation of Amphenone in Biologic Material and Its Absorption and Excretion in Man. James A. Pittman and Benton B. Westfall .................................................. 64

IX. A Peripheral Action of Reserpine. Robert A Maxwell, Samuel D. Ross, Albert J. Plummer and Ernst B. Sigg .......................... 69

X. Toxicity and Effects of Increasing Doses of Mescaline. Louise B. Speck .................................................. 78

XI. Blood and Hemodynamic Changes in Dogs Following Hemorrhagic Hypotension and Its Treatment with Dextran. R. A. Waud .......................... 85

XII. The Effect of Copper Ions and Certain Thioureas on Enzyme Induction and Ammonia Assimilation in a Mycobacterium. Frederick Bernheim .................................................. 93

XIII. Mechanisms for Cardiac Slowing by Methoxamine. Domingo M. Aviado, Jr. and A. L. Wnuck .................................................. 99

XIV. Pharmacologic Studies with S-(Para-Aminobenzyl)-Caffeine and Certain Related Compounds. Raymond M. Burgison, W. Edward O'Malley, Claire K. Heisse and John C. Krantz, Jr .......................... 107

XV. The Effects of Serotonin (5-Hydroxytryptamine) on Renal Hemodynamics. Angelo J. Spinazzola and Theodore R. Sherrod .......................... 114

XVI. The Influence of Some Basic Substances on the Transport of Tetraethylammonium Ion. A Farah, B. Rennick and M. Frazer .......................... 122

NUMBER 2, FEBRUARY, 1957

XVII. Abstracts of Papers .................................................. 129

XVIII. The Enzymatic Reduction of Chloramphenicol, P-Nitrobenzoic Acid and Other Aromatic Nitro Compounds in Mammals. James R. Fouts and Bernard B. Brodie .................................................. 197


XX. Effects of Mephentermine on Cerebral Metabolism and Circulation. David W. Richardson, Robert W. Ferguson and John L. Patterson, Jr .......................... 219

XXI. The Antagonistic Action of Sparteine upon the Veratrine Response. Jaime Fuentes .................................................. 225
CONTENTS

XXII. Cardiac Glycosides in Traumatic Shock. Alexander C. Keyl and William C. North ........................................ 229
XXIII. The Influence of Some Alcohols on the Uptake of Tetraethylammonium Ion by Renal Slices of the Dog. A. Farah and M. Fraser ............. 233
XXIV. Effects of d-Lysergic Acid Diethylamide and Its Brom Derivative on Cardiovascular Responses to Serotonin and on Arterial Pressure. G. C. Salmoiraghi, J. W. McCubbin and Irvine H. Page .................. 240
XXVI. Convulsant Hydrazides I. In Vitro and In Vivo Inhibition of Vitamin B. Enzymes by Convulsant Hydrazides. K. F. Killam and J. A. Bain .......... 255
XXVII. Convulsant Hydrazides II. Comparison of Electrical Changes and Enzyme Inhibition Induced by the Administration of Thiosemicarbazide. K. F. Killam .......................................................... 263
XXVIII. Pharmacological Actions of a Convulsant Barbiturate II. Effects Compared with Pentobarbital on Cerebral Cortex and Some Brain Stem Systems of the Cat. Edward F. Domino .................... 272
XXIX. Experimental Chemotherapy of Influenza Virus with Particular Reference to Thiosemicarbazones and Diphenyl Compounds. Gertrude Sheva Lum and Paul K. Smith ............................................. 284
XXX. Bioassay of Potential Ataraxic Agents Against Audiogenic Seizures in Mice. N. P. Plotnikoff and D. M. Green .......................... 294

NUMBER 3, MARCH, 1957

XXXII. The Hypothalamus as an Intermediary for Pituitary-Adrenal Activation by Aspirin. Robert George and E. Leong Way ....................... 310
XXXIII. Effects of Some Tranquillizing and Depressant Drugs on Conditioned Avoidance Behavior in Monkeys. R. P. Smith, A. I. Wagman, W. Wagaman, C. C. Pfeiffer and A. J. Riopelle ......................... 317
XXXIV. Veratrum Hypotension Due to Reflexes of Pulmonary Origin. John C. Rose and Eric J. Lazaro .................................................. 324
XXXV. The Respiratory Activity of Certain Neuromuscular Blocking Compounds: a Direct Peripheral and Central Comparison. Richard L. Irwin and Jay B. Wells .................................................. 329
XXXVI. Studies on Behavior. III. Effects of Scopolamine on Reversal of a Discriminatory Performance in Pigeons. Peter B. Dews .................. 343
XXXVII. Detection of Alterations in Central Nervous System and Skeletal Muscle Activity. I. M. Toekes ........................................... 354
XXXIX. The Gastric Secretion of Drugs: a pH Partition Hypothesis. Parkhurst A. Shore, Bernard B. Brodie and C. Adrian M. Hogben ............. 361
XL. Subjective Effects of Nalorphine in Hospitalized Patients. Arthur S. Keats and Jane Telford .................................................. 370
XLI. Plasma Concentrations of Epinephrine and Norepinephrine During Anesthesia. J. A. Richardson, E. F. Woods and A. K. Richardson ........ 378
XLII. Effects of Normal Air and Dextro-Amphetamine upon Work Decrement Induced by Oxygen Impoverishment and Fatigue. G. T. Hauty, R. B. Payne and R. O. Bauer ................................. 385
CONTENTS

XLIII. Agents Affecting Apomorphine-Induced Vomiting. Eldon M. Boyd and Wilfred A. Cassell ........................................... 390
XLIV. Comparative Effects of Various Rauwolfia Alkaloids on Centrally Evoked Vasopressor Responses. K. F. Bhargava and H. L. Borison 395
XLV. Comparative Studies of Emesis in Pigeons and Dogs. Rudolf Koster ........................................................................ 406
XLVI. A Potent New Uricosuric Agent, the Sulfoxide Metabolite of the Phenylbutazone Analogue, G-25671. J. J. Burns, T. F. Yü, Arnold Ritterband, James M. Perel, Alexander B. Gutman and Bernard B. Brodie .................. 418
XLVII. The Antiaccelerator Effect of Sparteine on the Heart-Lung Preparation of the Dog. Jaime Fuentes .................................................. 427
XLVIII. Quantitative Assay of Insulin in Blood Plasma in Normal and Alloxanized Dogs by Rat Diaphragm Method. Setsuya Takeuchi, Shigeru Ohashi and Yoshito Kobayashi .............................................................. 436
XLIX. Histamine Toxicity in Mice and Rats Following Treatment with Histaminase Inhibitors. Evangelos T. Angelakos and Earl R. Loew .............................................. 444

NUMBER 4, APRIL, 1957

LII. Pharmacology of Carbutamide (p-Aminophenylsulfonyl Butylcarbamide). Mary A. Root ................................................................. 468
LVI. The Effect of Preoperative Medication with Morphine on Postoperative Analgesia with Morphine. Joachim S. Gravenstein and Henry K. Beecher ............................................................................. 506
LVII. Studies on the Utilization of Uniformly Labeled C14-Glucose by Rats Given Tolbutamide (Orinase). William L. Miller, Jr., John J. Krake and Milton J. Vander Brook ................................................................. 513
LIX. The Oxidation of Drugs by Liver Microsomes: on the Role of TPNH and Oxygen. James R. Gillette, Bernard B. Brodie and Bert N. La Du ......................................... 532
LX. The Action of Ambenonium (WIN 8077) and Related Compounds in the Mouse. A. M. Lands, J. O. Hoppe, A. G. Kerezmar and Aaron Arnold ............................ 541
LXI. Observations Concerning the Renal Tubular Transport Characteristics of Three Quaternary Bases in Dogs. Alexander Kandel and Lawrence Peters ................................................................. 550
LXII. A Method for the Biological Assay of Reserpine and Reserpine-like Activity. Graham Chen and Barbara Bohner ................................................................. 559
LXIII. Reaction Rate and Oral Effectiveness of Certain Adrenergic Blocking Compounds. Richard A. McLean, James F. Kerwin and Edwin J. Fellows ................................................................. 566
LXIV. Enzymatic Conversion of the Dimethoxy Ester of Ben佐triazine Dithiophosphoric Acid to an Anticholinesterase Agent. Sheldon D. Murphy and Kenneth P. DuBois ................................................................. 572