CONTENTS

NUMBER 1, MAY, 1938

I. The Scientific Proceedings of the Twenty-Ninth Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics, Incorporated ........................................ 1

II. Respiratory Parasympathetic Action of Some Shorter Acting Barbituric Acid Derivatives. Charles L. Burstein and E. A. Rovenstine ................................................................. 42

III. Growth, Life-span and Food Intake of White Rats Fed Dinitrophenol Throughout Life. M. L. Tainter .......................................................... 51

IV. Colloidal Uranium. I. Toxicity. A. H. Maloney and A. F. Burton .......................................................... 58


VI. Influence of Autonomic Drugs on Ejaculation. S. Loewe .................................................. 70

VII. The Use of Dogs for the Standardization of Digitalis. Robert A. McGuigan and H. A. McGuigan .................................................. 76

VIII. The Duration of Anaesthesia Produced in the Dog by the Repeated Administration of Dial and Nembutal. G. H. Ettinger .................................................. 82

IX. Effects of Drinking Sobisminol on Skeletal Changes in Growing White Rats. A. J. Lehman and W. Dock .................................................. 88

X. The Use of Estrogenic Hormone in Experimental Peripheral Gangrene. Leo Loewe and Sidney Edward Lenke .................................................. 93

NUMBER 2, JUNE, 1938

XI. Phenol-Contaminated Waters and Their Physiological Action. V. G. Heller and Lee Pursell .................................................. 99

XII. A Comparative Study of the Effects of the Barbiturates, Ether, and Bulbocapnine on Micturition. Lawrence C. Kolb and Orthello R. Langworthy .................................................. 108

XIII. A Comparative Study of Various Agents in the Chemotherapy of Rat Trichomoniasis. Phyllis M. Nelson and A. L. Tatum .................................................. 122

XIV. An Initial Depression of Heart Rate in Response to Epinephrine in Human Subjects. Robert T. Fuchs .................................................. 143

XV. Experimental Carbon Tetrachloride Poisoning in the Cat. I. The Influence of Calcium Administration. A. Cantarow, Harold L. Stewart and David R. Morgan .................................................. 153

XVI. A Study of the Fibrin Factor in its Relation to Subacute Endocarditis. Meyer Friedman .................................................. 173

XVII. The Hypnotic Properties of Some Derivatives of Trihalogenated Alcohols. Robert R. Burtner and Gerhard Lehmann .................................................. 183
CONTENTS

XVIII. The Cardiac Arrhythmia, Characteristic Effect of the Thiobarbiturates, (Pentothal, Thio-pentobarbital and Thioethamyl) as Influenced by Changes in Arterial Blood Pressure. Charles M. Gruber, Victor G. Haury and Charles M. Gruber, Jr. .......................................................... 193

NUMBER 3, JULY, 1938

XIX. The Irritability of the Cardiac Vagus Nerves as Influenced by the Intravenous Injections of Barbiturates, Thiobarbiturates and Pierotoxin. Charles M. Gruber, Charles M. Gruber, Jr., and Nicholas A. Colosi .......................................................... 215

XX. The Depressant and Paralytic Actions of the Barbiturates on the Terrapin Cardiac Vagus Nerve. Charles M. Gruber, Victor G. Haury and Charles M. Gruber, Jr. .......................................................... 229

XXI. The Point of Action of the Barbiturates in Depressing the Cardiac Vagus Nerves. Charles M. Gruber, Victor G. Haury and Charles M. Gruber, Jr. .......................................................... 239

XXII. Some Tetrahydroisoquinolines. II. Their Action on Blood Pressure, Respiration and Smooth Muscle. David W. Fassett and Axel M. Hjort .......................................................... 253

XXIII. On the Relation of Blood Pressure to the Plasma Potassium Level. George Brewer and P. S. Larson .......................................................... 272

XXIV. Pharmacological Properties of Some 2,2,2 Trialkylethanols. David I. Macht, Hilah F. Bryan and Mary Lou Grumbein .......................................................... 279

XXV. The Effect of Apomorphine on the Movements of the Small Intestine in Unanesthetized Dogs. D. Slaughter and E. G. Gross .......................................................... 289

XXVI. The Effects of Bismuth Sodium Tartrate on the Blood and Hematopoietic Organs. J. W. Brown, S. P. Lucia and E. S. Mills .......................................................... 292

XXVII. The Effect of Parenteral Injection of Purines, Methylated Purines, and Various Drugs upon Creatine-Creatinine Metabolism. Howard H. Beard and Phillip Pizzolato .......................................................... 306

XXVIII. On the Pharmacological Properties of dl Alfa-nicotine. L. Waterman, M. D. and A. G. Oosterhuis, Ph. D. .......................................................... 318

XXIX. Pharmacological Actions of Corlumine. H. V. Rice .......................................................... 329

XXX. On the Reported Anemia-Producing Qualities of 1-Methyl-5'-cyclohexenyl-5-methyl-barbituric Acid (Evipan, Evipal). Henry K. Beecher .......................................................... 335


NUMBER 4, AUGUST, 1938

XXXII. The Sulphanilamides in Tertian Malaria. W. E. B. Hall .......................................................... 353

XXXIII. The Toxicity of Some Organic Selenium Compounds. A. L. Moxon, H. D. Anderson and E. P. Painter .......................................................... 357

XXXIV. The Pharmacology of Some New Local Anesthetics. A. R. McIntyre and R. F. Sievers .......................................................... 369
CONTENTS


XXXVI. Further Studies on the Mechanism of Peptone Shock. Carl A. Dragstedt, Franklin B. Mead and Simon W. Eyer 400


XXXVIII. The Effect of Morphine on the Skin and Rectal Temperatures of Dogs as Related to Thermal Polypnea. Allan Hemingway 414

XXXIX. The Antianesthetic Effects of some Convulsants in the Albino Mouse. Axel M. Hjort, Edwin J. De Beer and David W. Fassett 421


XLI. Bulbocapnine-Benzedrine Antagonism. E. Spiegel 438

XLII. Further Studies on the Absorption of Mercurial Diuretics as Influenced by Theophylline and other Substances. Robert A. Lehmann and Arnold Dater 443

XLIII. Trichlorethanol, Tribromethanol, Choral Hydrate and Bromal Hydrate. G. Lehmann and P. K. Knoefel 453

XLIV. Index 467
ILLUSTRATIONS

Average weights and food consumption of white rats in series II receiving dinitrophenol in food from time of weaning (fig. 1) .......................... 52
— weights and food consumption of white rats in series III receiving dinitrophenol in food from time of weaning (fig. 2) ......................... 53
Effect of colloidal uranium on respiration and carotid blood pressure (fig. 1). 59
Duration of anesthesia with repeated injections of dial and nembutal (fig. 1). 85
Growth, food and bismuth intake of young white rats drinking sobimol solution continuously (fig. 1) .................................................. 89
Curves showing variation of uric acid and phenolic content of rat blood according as phenol content of drinking water is increased (fig. 1) ........ 106
Record of vesical filling, animal unanesthetized (fig. 1) ......................... 110
Ether anesthesia (fig. 2) .................................................................. 111
— anesthesia during induction (fig. 3) .................................................. 112
Nembutal anesthesia (fig. 4) .............................................................. 113
Bulbocapnine anesthesia (fig. 5) ....................................................... 115
Time relationships of mean changes of reaction to epinephrine (fig. 1) ... 145
— relationships of mean changes of ten schizophrenic subjects after injection of epinephrine (fig. 2) ......................................................... 146
Effects on cats who have been experimentally poisoned by calcium and carbon tetrachloride (fig. 1) ..................................................... 156
Fibrin permeability apparatus (fig. 1) .................................................. 175
Cardiac arrhythmia in blood pressure changes produced by injection of pentothal sodium (fig. 1) ........................................................ 198
— arrhythmia in blood pressure changes produced by injection of acetylcholine chloride (fig. 2) ............................................................ 199
— arrhythmia in blood pressure changes produced by sodium thio-pentobarbital anesthesia (fig. 3) .......................................................... 203
— arrhythmia in blood pressure changes produced by sodium thio-pentobarbital anesthesia (fig. 4) .......................................................... 204
— arrhythmia in blood pressure changes produced by injection of pentothal sodium (fig. 5) ............................................................... 206
— arrhythmia in blood pressure changes produced by pentothal sodium anesthesia (fig. 6) ................................................................. 208
— arrhythmia in blood pressure changes produced by pentothal sodium anesthesia (fig. 7) ................................................................. 210
Blood pressure of dog injected with barbiturates (fig. 1) ....................... 220
— pressure of decerebrated cat injected with barbiturates (fig. 2) ............ 221
— pressure of monkey injected with barbiturates (fig. 3) ....................... 222
— pressure of dog injected with barbiturates (fig. 4) .............................. 223
— pressure of dog injected with barbiturates (fig. 5) .............................. 224
— pressure of monkey injected with barbiturates (fig. 6) ....................... 225
ILLUSTRATIONS

Chelydra serpentina in Ringer-ortal-sodium solution (fig. 1) 233
Clemmys guttata in Ringer-evipal-sodium solution (fig. 2) 234
— guttata in Ringer-sodium-amytal solution (fig. 3) 235
— guttata in solution of phanadorn in Ringer's (fig. 4) 236
— guttata in ortal sodium (figs. 1 and 2) 242
Chrysemys marginata in ortal sodium (fig. 3) 244
— marginata in evipal sodium (fig. 4) 245
— marginata in sodium amytal (fig. 5) 247
— marginata in Ringer's sodium amytal (fig. 6) 248
Clemmys guttata in ortal sodium (fig. 7) 250
Relative potency of some tetrahydroisoquinolines (fig. 1) 260
Sympathomimetic action of N—CH$_3$-6,7-(OH)$_2$ tetrahydroisoquinoline (fig. 2) 261
Depressor action of N—CH$_3$-6-ethoxy tetrahydroisoquinoline. Comparison with histamine (fig. 3) 263
Comparison of isomeric secondary and tertiary amines (fig. 4) 264
Effects of substituent groups and position of groups (fig. 5) 265
Depressor activity in compounds containing the 6-ethoxy group (fig. 6) 266
Reversal of epinephrine action by N—CH$_3$-tetrahydroisoquinoline (fig. 7) 267
Blood pressure tracing for dog during later stages of infusion of potassium (fig. 1) 275
Comparative effects of 50 mgm. of tri-ethyl ethanol and di-methyl-ethyl ethanol, respectively, on blood pressure of cat (fig. 1) 283
Effects of apomorphine on movements of small intestine (fig. 1) 290
Section of spleen of rabbit injected intravenously with bismuth sodium tartrate (fig. 1) 300
Same as figure 1 (fig. 2) 301
Low power view of section of spleen of rabbit injected intravenously with bismuth sodium tartrate showing many giant cells and many small areas of erythropoiesis (fig. 3) 302
Section of bone-marrow of rabbit injected intravenously with bismuth sodium tartrate (fig. 4) 303
Effects of repeated injections and ergotization on blood pressure response to ethylnorsuprarenin and epinephrine (fig. 1) 342
— on arterial and venous pressures, and intestinal, leg and hepatic volumes, from ethylnorsuprarenin (ENS), nitroglycerine and epinephrine (Epi) (fig. 2) 342
— on arterial pressure from ethylnorsuprarenin and epinephrine after repeated injections and ergotization (fig. 3) 345
Responses of the normal nictitating membrane compared by the nictitating membrane sensitized by sympathetic degeneration, and of arterial pressure, to ethylnorsuprarenin (ENS) and epinephrine (fig. 4) 347
Stimulation of cholinergic fibers by ethylnorsuprarenin as shown by changes in arterial pressure (fig. 5) 348
Growth curves of male rats (chart 1) 361
— curves of female rats (chart 2) 362
Typical livers from groups fed organic selenium compounds (fig. 1) 363
Female dog: respiration ceased before terminal fall in blood pressure with  
$\delta$-(N-methyl-N-phenethylamino) ethyl carbamilate (fig. 1)........... 385
Male dog: circulation and respiration appear to fail almost simultaneously.
N-(\(\beta\)-diethylaminoethyl) \(\alpha\)-butyl cinnamamide (fig. 2)............ 386
— dog: illustrates that total amount of drug injected into portal vein  
approximates fatal amount by femoral vein. Cocaine (fig. 3)........... 387
Typical effect of cyclopropane anesthesia on motility of jejunal fistula of  
unpremedicated dog (fig. 1).................................................. 395
Effect of morphine and scopolamine followed by cyclopropane anesthesia on  
an innervated and a denervated jejunal fistula (fig. 2)................. 397
Shock-producing potency of peptone preparation low in proteose and that of  
one high in proteose (fig. 1)................................................. 401
Showing effect of histamine acid phosphate and ultrafiltrate of dog’s blood  
drawn during peptone shock, upon blood pressure of partially eviscerated  
cat when injected intra-arterially via stump of celiac artery (fig. 2).... 403
— presence of histamine in blood plasma of dog following peptone injection  
which produced shock, and absence of any comparable amount of his-  
tamine in blood drawn after second injection of peptone (fig. 3)........ 404
— blood pressure tracing of peptone shock in dog in which primary fall  
due to depressor constituents of preparation used is readily distinguished  
* from shock reaction (fig. 4)................................................. 404
— primary and secondary fall of blood pressure from first injection of  
peptone solution and absence of secondary fall or shock reaction from  
second injection (fig. 5)....................................................... 405
Pre-panting temperatures and panting thresholds in three dogs (fig. 1).... 415
Effects of rest followed by morphine in unheated dog (fig. 2).............. 416
Conditions same as figure 2, except that two diathermy periods are intro-  
duced after morphine injection (fig. 3)..................................... 417
Effect of picrotoxin on average sleeping-time of mice anesthetized with  
unsymmetrical n-propyl-o-tolyl urea (fig. 1)............................... 427
— of strychnine on average sleeping time of mice anesthetized with un-  
symmetrical n-propyl-o-tolyl urea (fig. 2)............................... 428
— of 6-ethoxy-7-methoxy-1,2,3,4-tetrahydroisoquinoline upon average  
sleeping-time of mice anesthetized with unsymmetrical n-propyl-o-tolyl  
urea (fig. 1).................................................................. 436
— of 6,7-diethoxy-1,2,3,4-tetrahydroisoquinoline upon the average sleep- 
ing-time anesthetized with unsymmetrical n-propyl-o-tolyl urea (fig. 2). 436
— of 6-ethoxy-7-methoxy- and 6,7-diethoxy-1,2,3,4-tetrahydroisoquino-  
line upon the average sleeping-time of mice anesthetized with sodium-  
ethyl (1-methyl-butyl) barbiturate (fig. 3)................................. 437
Influence of increasing amounts of theophylline upon absorption of mercurin  
and salyrgan and influence of pH upon absorption of mercupurin (fig. 1). 447
— of increasing amounts of various "protective agents" upon absorption  
of mercurin (fig. 2)................................................................ 450
Titration of mercurin and salyrgan with theophylline (fig. 3)............. 450
Depression of respiration with tribromethanol, trichlorethanol, chloral hy-  
drinate (fig. 1).................................................................. 457
ILLUSTRATIONS

Same as figure 1 (fig. 2) ................................................................. 458
Decerebrate dog injected with trichlorethanol and tribromethanol (fig. 3) ... 458
Dog, anesthetized, injected with tribromethanol and trichlorethanol (fig. 4) 459
Spinal dog injected with same (fig. 5) ................................................... 460
Same as figure 5 (fig. 6) ................................................................. 460
Perfused rabbit heart injected with trichlorethanol and tribromethanol (fig. 7) .... 461
Spinal dog injected with bromal hydrate and epinephrine (fig. 8) ............ 462