

CONTENTS

NUMBER 1, MAY, 1932

I. Preliminary Observations with Theophylline Mono-ethanolamine. By A. Ling Chen.....	1
II. On the Mechanism of Ovulation in the Rabbit. IV. Quantitative Observations on the Action of Extracts of Urine of Pregnancy. By Maurice H. Friedman.....	7
III. The Purification and Some Properties of Insulin. By Tillman D. Gerlough and Robert W. Bates.....	19
IV. The Effect of Barium Chloride on the Salivary Secretion. By George W. Stavraký.....	53
V. Studies on the Coronary Arteries of the Human Heart. By William B. Kountz.....	65
VI. The Intact Intestine in Non-anesthetized Dogs as Influenced by Colocynth and Podophyllin. By Charles M. Gruber, Lyman K. Richardson and William T. K. Bryan.....	77
VII. About the Fate of Free Iodine upon Application to the Unbroken Animal Skin. An Experimental Study. By William Nyiri and Marie Jannitti....	85
VIII. A Note on the Absorption, Serum Concentration and Narcotic Effects of Magnesium. By Isaac Neuwirth and George B. Wallace.....	109
IX. The Action of Certain Drugs on the Oviduct of the Domestic Fowl. By Frank D. McKenney, Hiram E. Essex and Frank C. Mann.....	113

NUMBER 2, JUNE, 1932

X. Bacteriological Action of Certain Synthetic Organic Acids Toward Mycobacterium Leprae and Other Acid-fast Bacteria. XXI. By W. M. Stanley, G. H. Coleman, C. M. Greer, J. Sacks and Roger Adams.....	121
XI. Vanillyl-ethylamine, Vanillyl-methylamine and Benzyl-vanillylethylamine; the Relation of Chemical Structure to Pharmacologic Action. By W. E. Hambourger.....	163
XII. The Relation of Size of Ergot to Potency. By B. V. Christensen and Arnold D. Welch.....	183
XIII. Contribution to the Pharmacology of the Benzothiazoles. By Marston Taylor Bogert and Helen G. Husted.....	189
XIV. The Influence of Diet on Carbon Tetrachloride Intoxication in Dogs. By Jessie T. Cutler.....	209
XV. The Production of Gastric Lesions in Rabbits by Injection of Small Amounts of Pilocarpine into the Cerebrospinal Fluid. By Richard U. Light, Courtney C. Bishop and Lee G. Kendall.....	227

NUMBER 3, JULY, 1932

XVI. The Scientific Proceedings of the American Society for Pharmacology and Experimental Therapeutics. Twenty-third Annual Meeting, Held at Philadelphia, April 28-29-30, 1932.	253
XVII. The Action of a Soluble Derivative of Hexylresorcinol. By K. Singh Grewal.	283
XVIII. Spinal Anesthesia in Summer Frogs. By Raymond N. Bieter, A. McG. Harvey and W. W. Burgess.	291
XIX. The Response of Intact Intestine in Non-anesthetized Dogs to Cathartic Agents as Influenced by Morphine, Atropine and Strychnine. By Charles M. Gruber, William T. K. Bryan and Lyman K. Richardson. .	299
XX. Studies on the Response of the Isolated Intestine to Ergotamine with Special Reference to the Influence of Ions. By William Salant and William M. Parkins.	315
XXI. Studies of Morphine, Codeine and Their Derivatives. I. General Methods. By Nathan B. Eddy.	339
XXII. Studies of Morphine, Codeine and Their Derivatives. II. Isomers of Codeine. By Nathan B. Eddy.	361
XXIII. The Influence of Barbitol upon Cocaine Poisoning in the Rat. By Ardrey W. Downs and Nathan B. Eddy.	383

NUMBER 4, AUGUST, 1932

XXIV. Relation of Caffeine Dosage to Body Weight in Striated Muscle Response. By Ralph H. Cheney.	389
XXV. The Effect of Small Amounts of Ergotamine on the Circulatory Response to Epinephrine. By Gerald G. Woods, Victor E. Nelson and Erwin E. Nelson.	403
XXVI. The Effect of Calcium on the Response of Isolated Bronchi to Histamine. By Marjorie Gillespie and J. W. Thornton.	419
XXVII. Physical and Chemical Properties of Sodium Iodobismuthite, A Soluble Compound of Electronegative Bismuth for Use in the Treatment of Syphilis. By Chas. Gurchot, P. J. Hanzlik and Jean Spaulding.	427
XXVIII. Activity of Iodobismutol in Experimental Rabbit Syphilis, Compared with Some Other Bismuth Compounds and Neoarsphenamine. By C. C. Johnson, P. J. Hanzlik, D. C. Marshall and H. G. Mehrtens.	469
XXIX. Is Blood Protein Amide Nitrogen a Source of Urinary Ammonia? II. A Reply to Bliss. By Thomas P. Nash, Jr. and Edward F. Williams, Jr. .	487
XXX. Index.	493

ILLUSTRATIONS

Diuresis in a dog, female, weighing 10.3 kgm., caused by theophylline mono-ethanolamine (Fig. 1)	3
Precipitation of insulin from alcoholic solution (Fig. 1)	25
Insulin crystallized from pyridine-brucine-ammonium acetate solution (Plate 1)	28
— crystallized from NaCl solution (fig. A); from brucine-pyridine-ammonium acetate solution after saturating at 80°C. (fig. B); from glycerol-ammonium acetate solution (fig. C); from brucine-pyridine-ammonium acetate solutions (fig. D) (Plate 2)	31
Influence of pH on the rate of coagulation of insulin at 100°C. (Fig. 2)	46
— of formaldehyde on retarding the rate of coagulation of purified insulin at 100°C. (Fig. 3)	49
Effect of barium chloride on the salivary secretion (Fig. 1)	56
— of barium chloride on the salivary secretion (Fig. 2)	57
— of barium chloride on the salivary secretion (Fig. 3)	60
— of slow heating of the rings of the coronary artery (Fig. 1)	68
Coronary arteries of the human heart (Fig. 2)	69
— arteries of the human heart (Fig. 3)	70
— arteries of the human heart (Fig. 4)	72
Non-anesthetized 14-kgm. dog with Thiry-Vella loop (Fig. 1)	80
— 10-kgm. dog with Thiry-Vella loop (Fig. 2)	82
Dog under ether anesthesia (Fig. 3)	83
Effect of 0.5 cc. of epinephrine on three portions of the oviduct of the domestic hen (Fig. 1)	117
Behavior of the strips of oviduct in response to 1.2 mgm. of ergotoxine (Fig. 2)	117
Action of certain drugs on the oviduct of the domestic fowl (Fig. 3)	117
— of certain drugs on the oviduct of the domestic fowl (Fig. 4)	117
— of 0.25 mgm. of acetylcholine on the oviduct (Fig. 5)	119
— of synthetic organic acids. di-n-heptyl acetic acid (Fig. 1)	157
— of synthetic organic acids. Ethyl-di-n-heptyl acetate (Fig. 2)	157
— of synthetic organic acids. Sodium di-n-heptyl acetate (Fig. 3)	157
— of synthetic organic acids. Sodium di-n-heptyl acetate 1:250 (Fig. 4)	157
— of synthetic organic acids. Sodium di-n-heptyl acetate 1:500 (Fig. 5)	158
— of synthetic organic acids. Sodium di-n-heptyl acetate 1:5000 (Fig. 6)	158
— of synthetic organic acids. Sodium di-n-amyl acetate 1:250 (Fig. 7)	158
— of synthetic organic acids. Sodium di-n-hexylacetate 1:250 (Fig. 8)	158
— of synthetic organic acids. Sodium heptyl decyl acetate 1:250 (Fig. 9)	159
— of synthetic organic acids. Sodium salts of chaulmoogra oil 1:250 (Fig. 10)	159
— of synthetic organic acids. Chaulmoogra oil (Fig. 11)	159
Vanillyl-ethylamine: Blood pressure and heart rate (Fig. 1)	168

Vanillyl-methylamine: Blood pressure and heart rate (Fig. 2).....	168
Benzyl-vanillyl-ethylamine: Blood pressure and heart rate (Fig. 3).....	168
Vanillyl-ethylamine: Perfused frog heart (Fig. 4).....	168
Composite results of perfused blood vessels (Fig. 5).....	172
Vanillyl-ethylamine: Excised rabbit intestine (Fig. 6).....	174
Benzyl-vanillyl-ethylamine: Excised rabbit intestine (Fig. 7).....	174
Vanillyl-ethylamine: Excised rabbit uterus (Fig. 8).....	174
Benzyl-vanillyl-ethylamine: Excised rabbit uterus (Fig. 9).....	174
Effect of meat eating upon the guanidine level of a carbontetrachloride poisoned dog (Fig. 1).....	218
— of dextrin feeding to a carbon tetrachloride poisoned dog (Fig. 2).....	221
Position of needle during injection into cisterna magna of rabbit (Fig. 1) ..	231
Rabbit's skull showing position of trephine openings above lateral ventricles (Fig. 2).....	232
Position of needle for injection into lateral ventricle (Fig. 3).....	233
Projection of lateral ventricles of rabbit upon surface of brain (Fig. 4).....	234
Coronal section of rabbit brain showing position of needle in ventricle (Fig. 5) ..	235
Photomicrograph of section from cardiac portion of stomach of rabbit, killed two and one-half hours after injection of 10 mgm. pilocarpine hydro- chloride into lateral ventricle (Fig. 6).....	242
— of area enclosed by dotted lines in figure 6 (Fig. 7).....	243
— of section from cardiac mucosa of stomach of rabbit (Fig. 8).....	244
— of area enclosed by dotted lines in figure 8 (Fig. 9).....	245
— of section from cardiac portion of rabbit stomach (Fig. 10).....	246
— of section of cardiac portion of stomach of rabbit killed one hour after the last of a series of four hourly injections of 10 mgm. pilocarpine under the skin (Fig. 11).....	246
Effect of giving hexylresorcinol 0.5 gram, sodium hexylresorcinol disulphate 1 gram, and hexylresorcinol 1 gram on the surface tension of urine of rabbit A (Fig. 1).....	286
— of giving sodium hexylresorcinol 1 gram; hexylresorcinol 0.5 gram and sodium hexylresorcinol disulphate 2 grams on ninth, seventeenth and thirty-seventh days respectively on the surface tension of urine of rabbit B (Fig. 2).....	286
Hypodermic needle in canal of urostyle for intraspinal injection in the frog (Fig. 1).....	292
Ascent of methylene blue in spinal canal of frog (Fig. 2).....	295
Response of intestine to cathartic agents (Fig. 1).....	304
— of intestine to cathartic agents. Non-anesthetized 10 kgm. dog (Fig. 2).....	305
— of intestine to cathartic agents. Non-anesthetized 10 kgm. dog (Fig. 3).....	306
— of intestine to cathartic agents. Non-anesthetized 8 kgm. dog (Fig. 4).....	308
— of intestine to cathartic agents. Non-anesthetized 10 kgm. dog (Fig. 5).....	309
— of isolated intestine to ergotamine. Intestine of cats (jejunum) (Fig. 1).....	319
— of isolated intestine to ergotamine. Intestine of rabbit (jejunum) (Fig. 2).....	323
Rat intestine in a concentration of ergotamine about 1:100,000 (Fig. 3).....	329
Response of isolated intestine to ergotamine. Intestine of rat (jejunum) (Fig. 4).....	330

Morphine, codeine and their derivatives (Fig. 1)	344
—, codeine and their derivatives (Fig. 2)	349
Respiratory record of rabbit, experiment 13 (Fig. 3)	350
— record of rabbit, experiment 85 (Fig. 4)	354
— record of rabbit, experiment 81 (Fig. 5)	354
Intestinal evacuation in rabbits (Fig. 6)	357
— evacuation in rabbits which had received an hypnotic at the beginning of the three-hour period (Fig. 7)	358
Morphine, codeine and their derivatives (Fig. 1)	380
—, codeine and their derivatives (Fig. 2)	380
—, codeine and their derivatives (Fig. 3)	380
—, codeine and their derivatives (Fig. 4)	380
Fatigue record: Caffeine dosage 0.05 mgm. per gram body weight (Fig. 1) ..	395
— record: Caffeine dosage 0.10 mgm. per gram body weight (Fig. 2)	395
— record: Caffeine dosage 0.15 mgm. per gram body weight (Fig. 3)	395
— record: Caffeine dosage 0.20 mgm. per gram body weight (Fig. 4)	395
— record: Caffeine dosage 0.30 mgm. per gram body weight (Fig. 5)	396
— record: Caffeine dosage 0.40 mgm. per gram body weight (Fig. 6)	396
— record: Caffeine dosage 0.50 mgm. per gram body weight (Fig. 7)	396
Relationship of dosage per gram body weight to average T_1 fatigue value (Fig. A)	398
— of dosage per gram body weight to average H_1 contraction value (Fig. B) ..	398
— of dosage per gram body weight to average contraction height (H_1) \times average fatigue time (T_1) (Fig. C)	399
Effect of ergotamine on circulatory response (Fig. 1)	405
— of ergotamine on circulatory response (Fig. 2)	407
— of ergotamine on circulatory response (Fig. 3)	408
— of ergotamine on circulatory response (Fig. 4)	412
— of ergotamine on circulatory response (Fig. 5)	415
Response of isolated bronchi to histamine (Fig. 1A)	420
— of isolated bronchi to histamine (Fig. 1B)	421
— of isolated bronchi to histamine (Fig. 1C)	421
— of isolated bronchi to histamine (Fig. 2A)	422
— of isolated bronchi to histamine (Fig. 2B)	422
— of isolated bronchi to histamine (Fig. 2C)	423
— of isolated bronchi to histamine (Fig. 2D)	424
— of isolated bronchi to histamine (Fig. 2E)	424
Curative effects of iodobismutol on the local lesions of experimental rabbit syphilis (Fig. 1)	472
Healing action of sodium iodobismuthite on a chancre in experimental rabbit syphilis (Fig. 2)	477