## CONTENTS

**Number 1, August, 1925**

I. Slowing and Block in the Heart Under Digitalis in Animals. By V. R. Cushy and K. Y. Yu .................................................. 1

II. Effects of Quinidine on the Auricular Irritability and Conduction in the Terrapin’s Heart. By Arthur D. Hirschfelder and Charles Cervenka ... 19

III. Studies of Intoxication. III. The Action of Ethylene. By Bessie M. Davidson .......................................................... 27

IV. Studies of Intoxication. IV. The Action of Propylene. By Bessie M. Davidson .......................................................... 33

V. Studies of Intoxication. V. The Action of Ethyl Chloride. By Bessie M. Davidson .......................................................... 37

VI. Studies of Intoxication. VI. The Action of Methyl Ether. By Bessie M. Davidson .......................................................... 43

VII. The Excretion of Morphin into the Stomach. By Robert A. Hatcher and David Davis .......................................................... 49

VIII. The Salicylates. XV. Liberation of Salicyl from and Excretion of Salicyl Salicylate. By P. J. Hanzlik and N. E. Presho ......... 61

IX. The Salicylates. XVI. Liberation of Salicyl from and Excretion of Methyl Salicylate, with a Note on the Irregular Toxicity of the Ester in Man. By P. J. Hanzlik and N. E. Presho ........................................ 71

**Number 2, September, 1925**

X. The Effect of Ephedrine on Experimental Shock and Hemorrhage. By K. K. Chen .......................................................... 83

XI. A Preliminary Paper Concerning the Toxic Effect of Certain Alcoholic Beverages for the Kidney of Normal and Naturally Nephropathic Dogs. By Wm. deB. MacNider .......................................................... 97

XII. Studies of Intoxication. VII. The Effect of Caffeine. By Bessie M. Davidson .......................................................... 105

XIII. Studies of Intoxication. VIII. The Influence of Oxygen. By Bessie M. Davidson .......................................................... 111

XIV. An Experimental Study of Certain Benzyl Compounds with Special Attention to the Importance of Substitution in the Benzyl Nucleus and the Significance of the Side Chains. By Herman H. Jensen ............ 123

XV. The Action of Sparteine Sulphate on the Mammalian Heart. By J. Hamilton Crawford .......................................................... 171

XVI. II. The Action of Sparteine Sulphate on Experimental Fibrillation of the Auricles. By J. Hamilton Crawford ........................................ 181

iii
CONTENTS

NUMBER 3, OCTOBER, 1925


XVIII. The Effect of Strophanthin on Pulsation Rate of the Dorsal Blood Vessel of Lumbricus Terrestris. By Charles L. Wible .................................................. 199

XIX. Deficient and Surplus Consumption of Vitamine B: Their Quantitative Relation to Weight-Changes, and to Vitamine Storage, in Adult Pigeons. By J. D. Pilcher and Torald Sollmann .................................................. 203

XX. The Pharmacology of the Isolated Vein Ring. By K. J. Franklin ........... 215

XXI. The Action of Urethane on Involuntary Muscle. By K. J. Franklin ........... 227

XXII. Relationship between Chemical Structure and Physiological Action. The Effect of 1-Suprarenin (Synthetic Epinephrine) and Various Derivatives upon the Blood Sugar of Normal Rabbits. By Harry E. Dubin, H. B. Corbitt and Louis Freedman .................................................. 233

XXIII. The Influence of the Adrenals on the Toxicity of Morphine. By J. M. Rogoff and Jos. DeNecker .................................................. 243

NUMBER 4, NOVEMBER, 1925

XXIV. On the Inactivation of Atropine Sulphate by Rabbit Serum. By Jean La Barre .................................................. 259

XXV. Physiological Action of Furane. By Elizabeth M. Koch and Meyer H. Cahan .................................................. 281

XXVI. The Effect of Sodium Arsenite on the Blood Sugar Concentration of the Rabbit and Dog. By H. B. van Dyke .................................................. 287

XXVII. A Contribution to the Study of the Metabolism of Salicylic Acid. By E. G. Holmes .................................................. 297

XXVIII. Skin Absorption of Certain Gases. By D. C. Walton and M. G. Witherspoon .................................................. 315

NUMBER 5, DECEMBER, 1925

XXIX Acute Cocaine Poisoning, its Prophylaxis and Treatment in Laboratory Animals. By A. L. Tatum, A. J. Atkinson and K. H. Collins .................................................. 325

XXX. On the Active Principles of the Pituitary Extract. By H. H. Knaus .................................................. 337

XXXI. The Action of Certain Drugs and Ions on the Rat’s Uterus. By H. H. Knaus and A. J. Clark .................................................. 347

XXXII. Oestrus Variations of Uterine Activity in the Rat. By A. J. Clark, H. H. Knaus and A. S. Parkes .................................................. 359


XXXIV. The Mechanism of Vagus Inhibition as Produced by Adrenaline. By W. J. R. Heinekamp .................................................. 385

NUMBER 6, JANUARY, 1926

XXXV. Chlorocodon Whiteii: Its Constituents and Their Pharmacological Actions. By Walter J. Dilling .................................................. 397
   By W. Koskowski ........................................... 413
XXXVII. Tannin Occurring in the Kino Eucalyptus Calophylla. By
   Alexander McGookin and I. M. Heilbron .................. 421
XXXVIII. Bacterial Chemotherapy with Special Reference to Mercury
   Dyes. By George W. Raizise, M. Severac and John C. Moetsch ... 447
XXXIX. Chemotherapy of Bacterial Infections. I. Action of Acriflavine
   Gentian-Violet and Mercurochrome in Experimental Bacterial In-
   fections. By Ernest Linwood Walker and Marian A. Sweeney .... 461
XL. Morphine Miosis. By V. E. Henderson and R. W. Graham ....... 469
XLI. A Study of the Narcotic Action of Propylene. By J. T. Halsey,
   Chapman Reynolds and W. A. Prout ....................... 479
ILLUSTRATIONS

Myocarditis of dog's heart under strophanthin, showing occasional intermissions of the ventricle from partial A-V block (Fig. 1) 6
Half-rhythm at a later stage than figure 1 (Fig. 2) 7
Marked A-V block, the ventricle beating once to the auricle's 4 to 7 beats (Fig. 3) 8
--- sinus slowing with no A-V block in the first half of the tracing (Fig. 4) 9
Partial block, with spontaneous ventricular beat interpolated during failure of conduction (Fig. 5) 10
Repeated extrasystoles in the ventricle during pauses in the auricle from inhibition (Fig. 6) 12
The auricle beating slowly from inhibition due to scillaren, while the ventricle has assumed more rapid spontaneous rhythm (Fig. 7) 13
Absence of fibrillation when maximal faradic stimuli are applied to the right auricle of the terrapin (Fig. 1) 20
Response of both auricles to interrupted stimuli (Fig. 2A) 22
--- of both auricles to interrupted stimuli (Fig. 2B) 23
Depression of irritability after quinidine (Fig. 3) 24
Graph showing reaction times with choice under different concentrations of ethylene (Fig. 1) 29
--- showing reaction times with choice under different concentrations of ethyl chloride (Fig. 1) 40
--- showing reaction times with choice during successive administrations of 2.5 per cent ethyl chloride (Fig. 2) 41
--- showing reaction times with choice under different concentrations of methyl ether (Fig. 1) 46
Liberation of salicyl from methyl salicylate in "buffer" mixtures at 38°C at the end of one hour, six and twenty-four hours with and without pancreatine (Fig. 1) 72
Effect of ephedrine in histamine shock (Fig. 1) 85
--- of ephedrine in peptone shock (Fig. 2) 86
--- of ephedrine in anaphylactic shock (Fig. 3) 87
--- of ephedrine in surgical and traumatic shock (Fig. 4) 88
--- of ephedrine in hemorrhage (Fig. 5) 89
--- of ephedrine on peripheral circulation in histamine shock (Fig. 6) 90
--- of ephedrine on the heart in histamine shock (Fig. 7) 91
Graph showing simple reaction times after cessation of the inhalation of pure nitrous oxide to unconsciousness (Fig. 1) 106
--- showing the effect of 0.5 gram of caffeine on reaction times with choice (Fig. 2) 107
Graph showing reaction times with choice under 2.5 per cent ethyl chloride (Fig. 3) .................................................. 108
— showing reaction times with choice (Fig. 4) .......................... 109
— showing reaction times with choice (Fig. 1) .......................... 114
— showing the effect of 40 per cent nitrous oxide + 12 per cent oxygen followed by 40 per cent nitrous oxide + 28 per cent oxygen on reaction times with choice (Fig. 2) .......................... 116
— showing the effect of 33 per cent acetylene + 20 per cent oxygen, and 33 per cent acetylene + 33 per cent oxygen on reaction times with choice (Fig. 3) ......................... 117
— showing reaction times with choice during the inhalation of 3.36 per cent ethyl chloride in air and 3.36 per cent ethyl chloride in oxygen (Fig. 4) ..................... 120
Blood pressure and respiration. Dialcohol p-cresol. Rabbit—ether anesthesia (Fig. 1) .................................................. 136
— pressure and respiration. Alcohol salicylaldehyde. Rabbit—ether anesthesia (Fig. 2) .......................... 137
Antispasmodic action. Alcohol p-oxy-benzaldehyde. Intestinal segments—rabbit .......................... 146
— action. Thymotinic alcohol. Intestinal segments—rabbit (Fig. 4) .......................... 147
Diagram (Fig. 5) .................................................. 160
Myocardigrams from the auricle and ventricle and blood pressure tracing (Fig. 1) .................................................. 183
— from the auricle and ventricle and blood pressure tracing (Fig. 2) .............. 184
Healing power of neoarsphenamine in experimental rabbit syphilis (Fig. 1) .............. 189
— power of sodium salt of 3, 3', 4, 4'-tetraamino-arsenobenzene tetramethylene sulphinic acid in experimental rabbit syphilis (Fig. 2) .................................. 190
Average percentage weight of pigeons by groups according to yeast extract doses; polished rice diet (Fig. 1) .......................... 205
Percentage weight loss or gain at end of twenty-one days of yeast extract administration, arranged by groups, according to dosage (Fig. 2) .......................... 206
Average percentage weight of pigeons by groups during the vitamine and avitamine periods; polished rice diet throughout (Fig. 3) .......................... 207
— percentage weight of pigeons by groups during vitamine and avitamine periods; polished rice diet throughout (Fig. 4) ......... 208
Mesenteric vein ring (sheep), showing rhythmic movements (Fig. 1) .................................................. 217
— vein ring (sheep) (Fig. 2) .................................................. 218
— vein rings (sheep) (Figs. 3 and 4) .................................................. 219
— vein rings (ox) (Figs. 5 and 6) .................................................. 221
— vein rings (sheep) (Figs. 7, 8, 9, 10, 11 and 12) .................................................. 222
— vein ring (ox) (Fig. 1) .................................................. 228
Small intestine (rabbit) (Fig. 2) .................................................. 229
Intrapulmonary bronchus ring (sheep) (Fig. 3) .................................................. 229
Bladder (rabbit) (Fig. 4) .................................................. 230
Spleen (rabbit) (Fig. 5) .................................................. 231
Chart showing distribution of deaths, within four weeks, following adrenalec- tomy (Fig. 1) .................................................. 247
— showing distribution of deaths of a group of rats (Fig. 2) .................................................. 248
Chart showing the effect of 0.4 mgm. pilocarpine nitrate alone on normal intestine; the effect of same dose of pilocarpine nitrate on pieces of intestine treated previously with 0.01 mgm. atropine; and the effect of same dose of pilocarpine after 0.008 mgm. atropine (Fig. 1) 264
— showing average tonic variations after addition of 0.4 mgm. of pilocarpine nitrate to Ringer solution in which were suspended pieces of intestine treated previously by different quantities of extracted atropine (Fig. 2) 265
— showing tonic variation after addition of 0.4 mgm. pilocarpine nitrate to Ringer solution in which are suspended intestinal pieces treated previously by different quantities of atropine solution extracted from serum (Fig. 3) 266
— of the relation of inactivation of atropine with the duration of contact with serum (Fig. 4) 272
Abcissa, temperature to which the mixture serum- atropine was exposed for two hours (Fig. 5) 272
Cat, weighed 3.5 kgm., intravenous injection of extract equal to 1 mgm. of moist gland (Fig. 1) 338
—, weight 2.5 kgm. (Fig. 2) 340
Virgin cat, weight 2 kgm. (Figs. 3, 4 and 5) 342
— cat, weight 3 kgm., intramuscular injection of extract equal to 1 mgm. (0.2 cc. fluid) of moist gland (Fig. 6) 344
Cat, weight 3.5 kgm. (Figs. 7 and 8) 345
The action of adrenalin on the rat's uterus (Fig. 1) 348
— action of adrenalin and pituitary extract on conduction in the rat's uterus (Fig. 2) 350
— action of pituitary extract on the rat's uterus (Fig. 3) 352
Movements of same uterus (1) in situ and (2) isolated (Fig. 1) 360
— of the same uterus (1) isolated and (2) in situ (Fig. 2) 362
Diagram showing method of recording contractions of uterus from three leads simultaneously (Fig. 3) 364
Movements of same uterus in situ and isolated (Fig. 4) 365
Records of the movements of three different isolated uteri (Fig. 5) 368
Results of a comparative study on hypnotics of the barbituric acid series (Charts 1 and 2) 380, 381
Effect produced by stimulation of right vagus before and after eserine (Fig. 1) 386
Sections from an adrenaline curve before section of vagni and eserine (Fig. 2) 388
— from adrenaline curve after section of vagni nerves (Fig. 3) 389
Adrenaline curve after section of vagni and atropine (Fig. 4) 390
Inhibition produced by 1 cc. 1:10,000 adrenaline given intravenously (Fig. 5) 390
— produced by 1 cc. 1:10,000 adrenaline plus vagus stimulation (Fig. 6) 390
— produced by adrenaline (Fig. 7) 391
— produced by adrenaline plus vagus stimulation (Fig. 8) 391
Chlorocodon Whiteii. Action of volatile oil (1:3000) on rabbit intestine (Fig. 1) 401
Action of chlorocodon glucoside 0.1 per cent on frog heart (Fig. 2) 404
— of chlorocodon glucoside on frog heart (Fig. 3) 406
— of chlorocodon glucoside 1 per cent on frog's hyoglossus (Fig. 4) 409