

CONTENTS

NUMBER 1, MARCH, 1920

I. The Physiological Action of the Fumes of Iodine. By A. B. Luckhardt, F. C. Koch, W. F. Schroeder, and A. H. Weiland.....	1
II. III. A Note on the Action of Pilocarpine, Atropine and Adrenaline upon the Tonus Waves in the Terrapin Heart. By Charles M. Gruber.....	23
III. The Action of Gum Acacia on the Circulation. By W. M. Bayliss....	29
IV. A Non-Clotting Blood Pressure Apparatus. By Paul Dudley Lamson	75
V. The Minimum Concentration of Dichlorethylsulphide (Mustard Gas) Effective for the Eyes of Man. By C. I. Reed.....	77
VI. A Pressor Compound from the Pituitary Gland. By Albert C. Crawford	81

NUMBER 2, APRIL, 1920

VII. An Apparatus for the Exposure of Skin or Mucous Membrane to the Vapor of Toxic Substances, with Observations on Dichlorethylsulphide. By J. A. E. Eyster and Mary E. Maver.....	95
VIII. On Optical Isomers. V. The Tropeines. By A. R. Cushny.....	105
IX. The Local Anesthetic Properties of Phenyl Methyl Carbinol. By Axel M. Hjort and Charles E. Kaufmann.....	129
X. Effect of Atropine on Chloroform Hyperglycemia. By Ellison L. Ross	135
XI. The Effect of Some Antipyretics on the Acuity of Hearing. By D. I. Macht, J. Greenberg and S. Isaacs.....	149
XII. Comments on the Clotting Efficiency of Thromboplastic Agents. By Frederic Fenger.....	167
XIII. Iodine Absorption from the Human Skin. By Norman C. Wetzel and Torald Sollmann.....	169
XIV. Drug Perfusion of the Medulla of the Turtle. II. Aconitine, Morphine, Cocaine, Quinine. By A. D. Bush.....	173

NUMBER 3, MAY, 1920

XV. The Reaction of the Cat's Uterus to Strophanthus and Calcium. By Fred Ransom.....	181
XVI. The Point of Attack of Certain Drugs Acting on the Periphery. I. Action on the Bladder. By Charles W. Edmunds and George B. Roth	189
XVII. The Point of Attack of Certain Drugs Acting on the Periphery. II. Action on the Retractor Penis Muscle of the Dog. By Charles W. Edmunds.....	201
XVIII. The Influence of Heavy Metals on the Isolated Frog Heart. By William Salant and Helene Connet.....	217
XIX. Scientific Proceedings of the American Society for Pharmacology and Experimental Therapeutics.....	233

NUMBER 4, JUNE, 1920

XX. A Study of the Anurias Occurring in Normal Animals During the Use of the General Anesthetics. By William de B. MacNider.....	249
XXI. The Local Anesthetic Action of Saligenin and Other Phenyl Carbinols. By A. D. Hirschfelder, A. Lundholm and H. Norrgard.....	261
XXII. IV. The Antagonistic actions of Epinephrin and potassium Chloride on the Tonus and Tonus Waves in the Excised Terrapin Auricles. By Charles M. Gruber.....	271
XXIII. Further Pharmacologic Studies on Arsphenamine. By Maurice I. Smith.....	279
XXIV. Perfusion of the Medulla of the Turtle. III. Epinephrin. By A. D. Bush.....	297
XXV. The Mechanism of the Toxic Action of Cyanogen Chloride. By C. I. Reed.....	301
XXVI. Tyramine as a Morphine Antagonist. By Henry G. Barbour and Lloyd L. Maurer.....	305
XXVII. Blood Volume and Blood Volume Methods. By Paul D. Lamson and Takeyoshi Nagayama.....	331
XXVIII. On the Presence of Histamine in Extracts of the Posterior Lobe of the Pituitary Gland and on Preliminary Experiments with the Pressor Constituent. By John J. Abel and T. Nagayama.....	347
XXIX. On Histamine and a Histamine-like Substance as Decomposition Products of Albumoses. T. Nagayama.....	401

NUMBER 5, JULY, 1920

XXX. The Action of Chloral on the Pupil. By E. G. Hyatt, Hugh McGuigan and F. A. Rettig.....	415
XXXI. The Effect of High Temperature Upon the Action and Toxicity of Digitalis. By Arthur D. Hirschfelder, J. Bicek, F. J. Kucera and W. Hanson.....	427
XXXII. Continuous Blood Pressure Tracings in Man: An Apparatus. By A. C. Kolls.....	433
XXXIII. An Indirect Method for the Determination of Blood Pressure in the Unanesthetized Dog. By A. C. Kolls.....	443
XXXIV. Quantitative Studies in Chemotherapy. I. The Trypanocidal Action of Antimony Compounds. By Carl Voegtlin and Homer W. Smith.....	453
XXXV. Quantitative Studies in Chemotherapy. II. The Trypanocidal Action of Arsenic Compounds. By Carl Voegtlin and Homer W. Smith.....	475

ILLUSTRATIONS

Apparatus for liberation of fumes of iodine (Fig. 1).....	2
Photographs of sections of the thyroid gland magnified fifty times (Fig. 2)..	10
Photographic reproductions of sections of the thyroid glands of the same animal (dog 22) (Fig. 3).....	10
— reproductions of sections of the thyroid gland magnified fifty times (Fig. 4).....	13
Effect of the intrabracheal administration of the fumes of iodine (Tracing 1)	
<i>facing</i>	16
— of the intrabracheal administration of the fumes of iodine (Tracing 2).	
<i>facing</i>	16
— of pilocarpine, atropine and adrenaline upon the tonus waves in the terrapiin heart (Fig. 1).....	25
— of pilocarpine, atropine and adrenaline upon the tonus waves in the terrapiin heart (Fig. 2).....	26
— of pilocarpine, atropine and adrenaline upon the tonus waves in the terrapiin heart (Fig. 3).....	26
Saline injection after hemorrhage, compared with the effect of gum acacia (Fig. 1).....	34
Effect of hypertonic saline after hemorrhage (Fig. 2).....	36
Dilution of the blood (Fig. 3).....	37
Muscle injury (Fig. 4).....	41
Histamine shock. Effect of gum saline (Fig. 5).....	45
Effect of intravenous injections in the spinal cat (Fig. 6).....	61
A non-clotting blood pressure apparatus (Fig. 1).....	76
Apparatus for exposure of skin to toxic vapors (Fig. 1).....	97
— for exposure of skin toxic vapors (Fig. 2).....	97
— for exposure of skin to toxic vapors (Fig. 3).....	98
On optical isomers (Fig. 1).....	107
— optical isomers (Fig. 2).....	108
— optical isomers (Fig. 3).....	109
— optical isomers (Fig. 4).....	110
— optical isomers (Fig. 5).....	116
— optical isomers (Fig. 6).....	117
— optical isomers (Fig. 7).....	118
— optical isomers (Fig. 8).....	119
— optical isomers (Fig. 9).....	119
— optical isomers (Fig. 10).....	126
Turtle 2. Aconitine, crystalline, 0.005 per cent (Fig. 1).....	174
— 2. Morphine sulphate, 0.05 per cent (Fig. 2).....	175
— 3. Cocaine sulphate, 0.05 per cent (Fig. 3).....	176
— 6. Quinine sulphate, 0.01 per cent (Fig. 4).....	178

Reaction of uterus to strophanthus and calcium (Fig. 1)	182
— uterus to strophanthus and calcium (Fig. 2)	183
— uterus to strophanthus and calcium (Fig. 3)	184
— uterus to strophanthus and calcium (Fig. 4)	185
— uterus to strophanthus and calcium (Fig. 5)	186
Tracing from bladder of cat (Fig. 1)	202
— from bladder of male cat (Fig. 2)	203
Tracings from bladder of cat (Fig. 3)	204
Isolated retractor muscle (Fig. 4)	206
Morphine upon the isolated retractor muscle (Fig. 5)	211
Nicotine upon a relatively inactive retractor muscle (Fig. 6)	211
Frog heart perfused for one minute with 1:10,000 copper sulphate in Ringer solution minus sodium bicarbonate (Fig. 1)	219
Perfusion of frog heart with 1:1,000 iron citrate in Ringer's solution for one-half minute (Fig. 2)	221
— with 1:10,000 nickel acetate in Ringer's solution for one minute (Fig. 3)	223
Frog heart perfused for three minutes with 1:10,000 cobalt chloride in Ringer's solution (Fig. 4)	225
Zinc malate, 1:50,000, in Ringer's solution minus bicarbonate (Fig. 5)	226
Effect of 1:1,000,000 cadmium acetate in Ringer's solution minus sodium bicarbonate when perfused through the frog heart for one minute (Fig. 6)	229
Perfusion with 1:100,000 cadmium acetate in Ringer solution minus sodium bicarbonate (Fig. 7)	229
Gradual weakening of heart action by 1:1000 uranium acetate when perfused for one minute (Fig. 8)	230
Effect of continuous injection of 4 per cent saligenin in 0.9 per cent NaCl upon respiration and blood pressure (Fig. 1A)	266
— of continuous intravenous injection of 4 per cent saligenin solution in a dog (Figs. 1B, 1c)	267
Effects of intermittent injections of saligenin intravenously in a dog weighing 10 kgm. (Figs. 2A, 2B)	268
Chrysemys cinera (Fig. 1)	273
— cinera (Fig. 2)	273
— elegans (Fig. 3)	273
Dog, 7.5 kilos, morphine and chloretone (Fig. 1)	281
—, 9 kilos, morphine and chloretone (Fig. 2)	282
—, 25 kilos, morphine and chloretone (Fig. 3)	284
—, 10 kilos, morphine and chloretone (Fig. 4)	286
—, 10.3 kilos, ether (Fig. 5)	291
—, 5.5 kilos, ether (Fig. 6)	291
Respiratory apparatus for rat (Fig. 1)	307
Rat 6, 180 grams (Fig. 2)	311
Effect on respiratory volume of different rats of various doses of tyramine (Fig. 3)	313
Effects of large doses of tyramine upon the respiratory volume (Fig. 4)	315
— of morphine and tyramine injected together in rat 19, 135 grams (Fig. 5)	317
— of morphine and tyramine injected together in rat 28, 200 grams (Fig. 6)	318

Comparison of effects on respiratory volume of morphine alone with those of a simultaneous injection of morphine on one side and tyramine on the other side of a rat (Fig. 7)	322
Cat, 3.3 kgm., ether (Fig. 1)	351
—, 2.75 kgm., urethane anesthesia (Fig. 2)	354
Large cat, ether	356
Dog, 5.6 kgm., ether anesthesia (Fig. 4)	358
Cat, 3.3 kgm., ether anesthesia being the same animal used for the experiment illustrated in figure 1 (Fig. 5)	360
Effect of boiling an infundibular extract (Armour's Pituitary Liquid) with acid (Fig. 6)	363
— of heating infundibular extracts (Armour's Pituitary Liquid) with acids (Fig. 7)	364
Young dog, 5.4 kgm., anesthetic, chloretone (Fig. 8)	366
Guinea-pig's uterus (Fig. 9)	368
Virgin guinea-pig's uterus (Fig. 10)	369
— guinea-pig's uterus (Fig. 11)	370
Action of 2 drops of a diluted infundibular extract (Armour) on the virgin guinea-pig's uterus (Fig. 12)	371
Large cat, ether (Fig. 13)	376
Small dog, 6.4 kgm., chloretone in oil intraperitoneally (Fig. 14)	382
Dog, 5.5 kgm., chloretone in oil intraperitoneally (Fig. 15)	382
Young dog, 6 kgm., anesthetic not noted at time (Fig. 16)	383
— dog, 4.9 kgm., chloretone in oil intraperitoneally (Fig. 17)	384
— dog, 3.95 kgm., anesthetic not noted (Fig. 18)	385
Dog, 6.9 kgm., ether (Fig. 19)	386
Young dog, 4.2 kgm.; anesthetic, chlorotone intraperitoneally (Fig. 20)	387
Dog, 7.9 kgm., ether (Fig. 21)	390
Young dog, 5.55 kgm., ether (Fig. 1)	403
Animal as in figure 1 (Fig. 2)	404
Comparative action on the virgin guinea-pig's uterus of 0.37 per cent solution of the unaltered proteoses (Fig. 3)	405
Dog, ♂, 9.2 kgm. (Fig. 4)	407
Animal as in figure 3 (Fig. 5)	408
Young dog, 3.2 kgm., ether (Fig. 6)	410
Same animal as in figure 6 (Fig. 7)	410
Effects of chloroform extracts after hydrolysis of the proteoses on the virgin guinea-pig's uterus (Fig. 8)	411
Cat, ♀, 2.63 kgm., ether (Fig. 9)	412
Effect of equal quantities of the alcohol extract of the three proteoses on the virgin guinea-pig's uterus (Fig. 10)	414
Diagram of apparatus for continuous blood-pressure tracings (Fig. 1)	435
Apparatus for continuous blood pressure tracings in man (Fig. 2)	436
Electromagnetic valve—actual size (Fig. 3)	437
Continuous blood pressure tracing (Fig. 4)	439
— blood pressure tracing (Fig. 5)	440
Cross section of dog's thigh (lower diagram shows the relation of cuff to leg) (Fig. 1)	445

Drawing of the cuff (Fig. 2).....	446
Sphygmograph (approximately actual size) (Fig. 3).....	447
The sphygmomanometer (Fig. 4).....	449
Record of a determination on a normal unanesthetized dog (Fig. 5).....	450
Comparison of direct and indirect methods on the anesthetized animal (Fig. 6).....	450
Quantitative studies in chemotherapy. I (Fig. 1).....	459
— studies in chemotherapy. I. (Fig. 2).....	459
— studies in chemotherapy. I. (Fig. 3).....	460
— studies in chemotherapy. I. (Fig. 4).....	460
— studies in chemotherapy. I. (Fig. 5).....	461
— studies in chemotherapy. I. (Fig. 6).....	461
— studies in chemotherapy. I. (Fig. 7).....	462
— studies in chemotherapy. I. (Fig. 8).....	465
— studies in chemotherapy. I. (Fig. 9).....	466
— studies in chemotherapy. I. (Fig. 10).....	467
Quantitative studies in chemotherapy. II. (Chart 1).....	476
— studies in chemotherapy. II. (Chart 2).....	480
— studies in chemotherapy. II. (Chart 3).....	481
— studies in chemotherapy. II. (Chart 4).....	482
— studies in chemotherapy. II. (Chart 5).....	488
— studies in chemotherapy. II. (Chart 6).....	489