CONTENTS

Number 1, May, 1937

	1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
1	I. Atropine and Syntropan. A Comparative Study. K. Fromherz II. The Relationship Between Age and the Action of Atropine and
14	Morphine. H. A. Schlossmann
32	A. S. Minot and Margaret Keller
45	IV. Effect of Continuous Venoclysis in Dogs with Guanidine Intoxication. A. S. Minot and Margaret Keller
56	V. On the Pharmacology of Phenylisopropylamine (Benzedrine). L. E. Detrick, Ralph Millikan, F. S. Modern and C. H. Thienes.
	VI. Actions of Erythrina Americana, a Possible Curare Substitute
69	A. J. Lehman
82	the Pituitary Gland. A. M. Fraser
	Gland and its Effect on the Assay of Pituitary Extracts. A. M.
89	Fraser
	Number 2, June, 1937
97	IX. The Scientific Proceedings of the American Society for Pharmacology and Experimental Therapeutics, Incorporated
125	X. A Pharmacologic Study of Certain Thiobarbiturates. O. M. Gruhzit, A. W. Dox, L. W. Rowe and M. C. Dodd
	XI. The Effects of Anesthetic Doses of Sodium Thio-Pentobarbital, Sodium Thio-Ethamyl and Pentothal Sodium upon the Respira-
142	tory System, the Heart and Blood Pressure in Experimental Animals. Charles M. Gruber
	XII. The Pharmacology of Meta-Synephrin. Eldon M. Boyd
	XIII. Studies on Calcium Creosotate. II. The "in Vitro" Compara- tive Study of the Efficiency of Calcium Creosotate, Calcium
172	Guaiacolate and Creosote as Bactericidal Agents. Edwin J. Fellows.
110	XIV. Studies on Calcium Creosotate. III. The Elimination of Vola-
	tile Phenols in Rabbit Urine after the Administration of "Calcium Creosotate Solution" and after Creosote Solution.
183	Edwin J. Fellows
	XV. A Comparative Study of Several Ultrashort-acting Barbiturates, Nembutal, and Tribromethanol. H. W. Werner, T. W. Pratt
189	and A. L. Tatum
198	Miotine. A. C. White and E. Stedman

XVII.	An Investigation of the Possible Protective Action of Calcium Gluconate in Aspirin Poisoning. Henry G. Barbour and Janet				
XVIII.	A. Porter The Action of Morphine and its Derivatives on Contractions of	224			
	Leech Muscle Due to Acetyl-Choline, Choline and Nicotine. J. H. Quastel and M. Tennenbaum	228			
	Number 3, July, 1937				
XIX.	Reticulocytosis in the Guinea Pig. I. The Use of Standard Guinea Pigs in the Assay of Anahaemin. M. M. O. Barrie	235			
XX.	Reticulocytosis in the Guinea Pig. II. The Haematopoietic Response of "Reactive" Guinea Pigs to Anahaemin and Other				
XXI.	Substances. M. M. O. Barrie				
XXII.	Man. Thorne M. Carpenter and Robert C. Lee	254			
vvIII	Thorne M. Carpenter and Robert C. Lee	264			
	Man. Thorne M. Carpenter and Robert C. Lee	286			
XXIV.	Human Autonomic Pharmacology. X. The Synergism of Prostigmin and Mecholyl. Abraham Myerson, Max Rinkel, Julius Loman and Paul Myerson	വര			
XXV.	Propylene Glycol: Rate of Metabolism Absorption and Excre-	290			
	tion, with a Method for Estimation in Body Fluids. A. J. Lehman and H. W. Newman	312			
XXVI.	Studies upon the Sex-Difference in Rats in Tolerance to Certain Barbiturates and to Nicotine. Harald G. O. Holck, Muntr A.				
XXVII.	Kanan, Lucille M. Mills and Edwin L. Smith				
	Chemical Studies on Mocassin Venom. I. Some Properties of the Hemorrhagic and Hemolytic Components. Samuel M.	•			
	Peck and Walter Marx	358			
Number 4, August, 1937					
XXIX.	Some Unsymmetrical Alkylaryl Ureas. II. Preparation, Physi-				
	cal Properties and Hypnotic Effects. Johannes S. Buck, Axel M. Hjort, Edwin J. de Beer, Clayton W. Ferry and Walter	000			
XXX.	S. Ide	309			
******	Experimental Evaluation. Eugene J. Stanton	387			
XXXI.	Studies on Coronary Circulation. V. Effect of Pyridine- β -carboxylic Acid Diethylamide (Coramine) and Pentameth-				
	ylenetetrazol (Metrazol) on Coronary Circulation. O. O.	204			
XXXII.	Stoland and A. M. Ginsberg	990			
	tivities in Extracts of Submaxillary Gland of Rat. George F. Koepf and J. F. Mezen	407			
	T. Trocht ond A. L. Miczell	101			

CONTENTS

XXXIII. Oestrogenic Potency of Orall Arthur Duston Odell, Do	y Administered Oestriolglucuronide. rothy Irene Skill and Guy Frederic
Marrian	
XXXIV. Analysis of Cardiac Irregu	larities Produced by Calcium, and um Amytal. H. E. Hoff and L. H.
XXXV. Effect of Ephedrine on Absward J. Van Liere, David	sorption from Small Intestine. Ed- Northup and Clark K. Sleeth 434
XXXVI. Study of Toxic and Anesthet Barbiturate (Ortal Soc	ic Properties of Sodium n-hexylethyl lium) in Experimental Animals.
Charles M. Gruber and Jo	ohn T. Brundage 439
XXXVII. Toxicity and Pathology of S	Selenium. M. I. Smith, E. F. Stohl-
XXXVIII. Picrotoxin as Respiratory Edward M. Walzl and D.	H. Le Messurier
XXXIX. Index	487

ILLUSTRATIONS

Salivary secretion (fig. 1)	7
Effect of acetylcholine, atropine and syntropan on blood pressure of cat	
(fig. 2)	9
of acetylcholine, atropine and syntropan on isolated rabbit intestine	
(figs. 3 and 4)	11
Mortality curves for atropine sulphate in rabbits in first month of life and in	90
older rabbits (fig. 1)	20
	24
lethal doses of atropine (fig. 2)	44
older than two months (fig. 3)	28
Effect of benzedrine sulphate on isolated cat ileum (fig. 1)	59
— of benzedrine on isolated cat ileum (fig. 2)	60
— of benzedrine on isolated cat ileum (fig. 3)	61
of benzedrine on isolated cat duodenum (fig. 4)	62
— of benzedrine on isolated rabbit ileum (fig. 5)	63
Typical effects of erythrina on contractions of diaphragm and blood pressure	
in cat (fig. 1)	76
Effect on respiration of thiobarbiturate administration in dog (fig. 1)	135
— on respiration and blood pressure of thiobarbiturate administration in	
dog (fig. 2)	136
on respiration, blood pressure, and heart action of thiobarbiturate	
administration in dog (figs. 3 and 4)	137
Changes in respiration following injection of pentothal sodium in rabbit, cat,	
and monkey (fig. 1)	150
Electrocardiogram showing effect of thiobarbiturate on respiration and heart	
action of dog (fig. 2)	152
-07	153
showing effect of thiobarbiturate on respiration and heart action of dog	
(fig. 4)	154
showing effect of thiobarbiturate on respiration and heart action of dog	
(fig. 5)	157
	159
showing effect of thiobarbiturate on respiration and heart action of dog	
(fig. 7)	161
showing effect of thiobarbiturate on respiration and heart action of dog	100
	162
showing effect of thiobarbiturate on respiration and heart action of dog	169
(fig. 9)	163
showing effect of thiobarbiturate on respiration and heart action of dog	167
(fig. 10)	101

${\bf Electrocardiogram\ showing\ effect\ of\ thiobarbiturate\ on\ respiration\ and\ heart}$	
	168
showing effect of thiobarbiturate on respiration and heart action of dog	
(fig. 12)	170
Miotic action in cat, goat and fowl (fig. 2)	
Actions of dextro- and laevo-miotine on isolated rabbit vas deferens (fig. 3)	
— of dextro- and laevo-miotine on rabbit vas deferens (figs. 4 and 5)	
— of dextro- and laevo-miotine on guinea pig uterus (fig. 6)	
of dextro- and laevo-miotine on leech muscle (fig. 7)	
Duration and amounts of alcohol in expired air after ingestion of alcohol plus	
galactose (fig. 1)	255
Amounts of alcohol in expired air after ingestion of alcohol plus glucose (fig. 1)	270
Changes in respiratory quotient in successive periods after ingestion of glu-	
cose and after ingestion of sugar plus alcohol (fig. 2)	274
Duration and amounts of alcohol in expired air after ingestion of alcohol plus	
	287
Effect of injection of mecholyl and synergistic effect of prostigmin when	
combined with mecholyl on free HCl and gastric juice production (fig. 1)	302
- of mecholyl iontophoresis alone and effect of mecholyl iontophoresis	
when combined with prostigmin on gastric free HCl and gastric juice pro-	•••
duction (fig. 2)	303
— of injection of mecholyl, of injections of prostigmin, and of combinations	900
	306
— of prostigmin alone and of mecholyl and prostigmin in combination on blood pressure and pulse rate (fig. 4)	210
Blood propylene glycol concentration in dogs following administration of	310
* ** * * ·	317
Rate of disappearance and concentration of propylene glycol in blood of	011
normal and nephrectomized dogs (fig. 2)	319
Comparative average recovery times after administration of sodium evipal	0.0
and of sodium barbital (chart 1)	331
· · · · · · · · · · · · · · · · · · ·	333
Comparative average recovery times after administration of sodium evipal	
(chart 3)	337
	338
Anesthetizing chamber; also chimpanzee coöperating in process of rectal	
	349
Minimum hypnotic and minimum lethal doses of some unsymmetrical al-	
-JJ (-0, -/····································	375
Time relationships of various phases of intoxications induced by minimum	
hypnotic doses of some unsymmetrical alkylaryl ureas (fig. 2)	376
Relationships between melting points, chemical constitution and minimum	
hypnotic and minimum lethal doses of some unsymmetrical alkylaryl	970
ureas (fig. 3)between Distribution coefficients, chemical constitution and minimum	410
hypnotic and minimum lethal doses of some unsymmetrical alkylaryl	
nreas (fig. 4)	381

Rate of coronary flow and blood pressure in dog's heart-lung preparation	
after adding 1 cc. coramine to circulating blood (fig. 1)	399
- of coronary flow and blood pressure in dog under ether anesthesia follow-	
ing intravenous injection of 1.5 cc. coramine (fig. 2)	
Effect of tissue extracts on isolated cat bladder and rat uterus (fig. 1)	
— of submaxillary gland of rat, mouse, and cat on rat uterus (fig. 2)	
— of submaxillary gland of rat on blood pressure of etherized cat (fig. 3)	
Heat destruction curve of uterine principle of submaxillary gland of rat	
(fig. 4)	
Effect of acetylcholine and submaxillary gland of rat on rat uterus before and	110
after atropine and effect of acetylcholine and submaxillary gland of rat	
on leech muscle (fig. 5)	415
Oestrogenic potency of orally administered oestriolglucuronide (fig. 1)	
Cardiac irregularities produced by calcium and prevention by sodium amytal	444
	497
(fig. 1)	
(fig. 2)	
irregularities produced by calcium and prevention by sodium amytal	
(figs. 3 and 4)	429
irregularities produced by calcium and prevention by sodium amytal	400
(fig. 5)	430
Curve plotted from data obtained on 62 rats which received sodium n-hexyl-	
ethyl barbiturate intraperitoneally (fig. 1)	
—— plotted from data obtained from 275 observations on rats which received	
sodium n-hexylethyl barbiturate (fig. 2)	443
Mortality curve of 29 rats on adequate synthetic diet containing 50 parts per	
million selenium as sodium selenite (fig. 1)	
Effect of picrotoxin on respiration (fig. 1)	
— of picrotoxin on respiration (figs. 2 and 3)	475
— of picrotoxin on respiration (figs. 4 and 5)	483