CONTENTS

Number I, September, 1912

I. The Pulmonary Action of Vanadium together with a Study of the	
Peripheral Reactions to the Metal. By D. E. Jackson	1
II. A study of the Action of the Heart in Anaphylactic Shock in the Dog.	01
By Arthur B. Eisenbrey and Richard M. Pearce	21
80n	33
IV. Studies in Absorption of Drugs from the Gastric Mucous Membrane:	43
1. Strychnine Nitrate. By A. H. Ryan	59
VI. A Method of Standardising Pituitary (Infundibular) Extracts. By	J
H. H. Dale and P. P. Laidlaw	75
Number 2, November, 1912	
VII. The Therapeutical Action of the Cresotinic Acids. By Ralph Stockman.	97
VIII. The Action of Hydroxy-Codeine. By J. R. C. Greenlees	
IX. The Emetic Action of the Digitalis Bodies. By Robert A. Hatcher	
and Cary Eggleston	
X. The Pharmacological Action of Coriamyrtin. By C. R. Marshall	135
XI. On the Destruction of Epinephrin and Constrictor Substances of Serum	
by Oxygenation in the Presence of Blood Vessel Walls. By Arthur L.	
Tatum	
All. Action of Quinine on the Leucocytes. By George B. Roth	197
Number 3, January, 1913	
TEXT OF A LICEN OF THE ALL OF THE POST	
XIII. The Anaphylactic Reaction of Plain Muscle in the Guinea-Pig. By H. H. Dale	167
XIV. The Congenital Tolerance of the Rat to Strophanthus. By J. A.	101
Gunn	225
XV. Mode of Union between the Amanita-Haemolysin and its Antihae-	
molysin. By William W. Ford and Ethel M. Rockwood	235
XVI. Note on the Amanita-Toxin. By William W. Ford and Edith Bron-	
son	241
XVII. Note on the Action of Histamin upon Surviving Arteries. By Henry	045
G. Barbour	240

NUMBER 4, MARCH. 1913

XVIII. The Pharmacological Action of Catha Edulis and Its Alkaloids.	051
By Ralph Stockman	251
Benjamin Moore. In Collaboration with H. V. Foster, Henrietta Hanley, H. W. Jones, S. N. Wright and T. A. Webster	
XXI. The Peripheral Action of Certain Drugs with Special Reference to the Lungs. By D. E. Jackson	
XXII. Further Observations on Fungi, Particularly Clitocybe Sudorifica Peck, Pholiota Autumnalis Peck, and Inocybe Decipiens Bresadola. By William W. Ford and Joseph L. Sherrick	
XXIII. On the Resistance of Various Spirochaetes in Cultures to the Action of Chemical and Physical Agents. By J. Bronfenbrenner and H. Noguchi	222
XXIV. Scientific Proceedings of the American Society for Pharmacology and Experimental Therapeutics. Edited by the Secretary, Dr. John	
Auer	341
Number 5, May, 1913	
XXV. On the Pharmacology of the Respiratory Centre. By Arthur R. Cushny	363
XXVI. The Factors Determining Tolerance of Glucosides of the Digitalis Series. By A. J. Clark	
XXVIII. The Relation of Vascular Conditions to Pituitrin Diuresis. By R. G. Hoskins and John W. Means	
XXIX. Saline Perfusion of the Respiratory Center in Frogs: the Effect of Calcium Chloride and Potassium Chloride. By D. R. Hooker	443
Number 6, July, 1913	
XXX. The Absorption and Excretion of Ammonia by the Lungs. By Hugh McGuigan	453
XXXI. Some Examples of the Effect of Asymmetric Nitrogen Atoms on Physiological Activity. By P. P. Laidlaw	461
XXXII. On the Pharmacological Action of Helenin, the Active Principle of Helenium Autumnale. By Paul Dudley Lamson	471
with Special Reference to the Part Played by the Anesthetic in Determining the Efficiency of the Diuretic. By William de B. MacNider	491
XXXIV. The Effect of Varying Tonicity on the Anaphylactic and Other Reactions of Plain Muscle. By H. H. Dale	
XXXV. On the Influence of Phenylquinolin Carbonic Acid (Atophan) on the Uric Acid Elimination. By Otto Folin and Henry Lyman	539
XXXVI. The Action of So-Called Emmenagogue Oils on the Isolated Uter- ine Strip. By David I. Macht	547

ILLUSTRATIONS

Left pulmonary blood-pressure, kidney volume, and carotid tracing from	
a dog (Fig. 1)	5
Lung volume (upper lobe of right lung) and right carotid pressure tracings	
from a dog (Fig. 2)	11
Lung volume and carotid blood-pressure tracings from a dog (Fig. 3)	12
Lung volume and carotid pressure tracings from a dog (Fig. 4)	14
Anaphylactic "shock" (Fig. 1)	28
Anaphylactic "shock" (Fig. 2)	29
Dog's urine (Fig. 3)	30
Peptone solution (Fig. 4)	31
Carotid blood-pressure tracing from a dog (Fig. 1)	39
Lung volume and carotid blood-pressure tracings from a dog. Brain and	
medulla destroyed by chloroform (Fig. 1)	61
Lung volume and carotid blood-pressure tracings from a dog. Brain and	
medulla destroyed by chloroform (Fig. 2)	66
Lung volume and carotid tracings from a dog. Brain and medulla de-	
stroyed (Fig. 3)	70
Lung volume and carotid tracings from a dog. Brain and medulla de-	
stroyed (Fig. 4)	73
Diagrammatic section of constant temperature bath for isolated organs	
(Fig. 1)	81
Kymograph with flat writing surface (Fig. 2)	83
Records from the isolated uterus of the virgin guinea-pig in 250 cc. of Ringer's	
solution (Fig. 3)	86
Three successive responses to 0.025 cc. of the same extract, overlapped for	
comparison (Fig. 4)	87
Comparison of extract T with standard extract S (Fig. 5)	88
The same extracts as in figure 5 compared with another (more highly sensi-	
tive) uterus (Fig. 6)	89
The same extracts as in figures 5 and 6 compared on the blood-pressure of	
a pithed cat (Fig. 7)	90
Comparison with the standard (S) of a nearly equivalent extract (X) (Fig. 8)	91
Continuation of figure 8 (Fig. 9)	92
Varying doses of the same extract. (Fig. 10)	93
	103
Man, 23. Acute rheumatism (Chart 2)	103
	104
Woman, 21. Sixth attack of rheumatism since nine years of age (Chart 4).	104
	105
Man, 19. Acute rheumatism (Chart 6)	105
Man, 20. Acute rheumatism (Chart 7)	
and the control of th	

ILLUSTRATIONS

•	
Man, 30. Acute rheumatism (Chart 8)	106
Woman, 27. Erythema nodosum (Chart 9)	107
Man, 21. Acute rheumatism (Chart 10)	107
Man, 23. Acute rheumatism (Chart 11)	108
Comparison of effect of strychnine and coriamyrtin on the respiration of a	
deeply anaesthetized animal (Fig. 1)	145
Effect of coriamyrtin on hind limb of decerebrate cat with spinal cord di-	
vided (Fig. 2)	148
Sensitisation: 1/540 diphtheria antitoxin (horse) + 1 test dose of toxin,	
fourteen days previously (Fig. 1)	177
Sensitisation: 1/480 diphtheria antitoxin + 1 test dose, fourteen days (Fig. 2)	178
Sensitisation: 0.1 cc sheep serum, thirteen days (Fig. 3)	
Sensitisation: 0.1 cc. egg-white, twelve days (Fig. 4)	180
Sensitisation: 1/300 cc. diphtheria antitoxin + 1 test dose toxin, fourteen	
days (Fig. 5)	181
Sensitisation: 1/800 cc. diphtheria antitoxin + 1 test dose toxin, fourteen	
days (Fig. 6)	182
Normal uterus. A. 1 cc. 15 per cent purified horse globulin. B. 1 cc. fresh	
guinea-pig serum (Fig. 7)	183
Sensitisation: 1/200 cc. diphtheria antitoxin + 1 test dose toxin, fourteen	
days (Fig. 8)	
Segment of small intestine, 40 mm. long, from sensitised guinea-pig (Fig. 9)	187
Sensitisation: 1/15 cc. egg-white + 1/30 horse serum + 1/30 cc. sheep	
serum, nineteen days (Fig. 10)	
Guinea-pig immunised to horse serum (Fig. 11)	
Guinea-pig immunised to horse serum (Fig. 12)	193
Same experiment as figure 12 (Fig. 13)	194
Passive sensitisation. Serum from guinea-pigs immunised to horse serum	
(Fig. 14)	196
Passive sensitisation with serum from guinea-pigs anaphylactic to horse	
serum (Fig. 15)	
Same experiment as in figure 15 (Fig. 16)	199
Sensitisation: $1/450$ cc. diphtheria antitoxin $+ 1$ test dose of toxin, ten days	
(Fig. 17)	
Same experiment as figure 17 (Fig. 18)	201
Sensitisation: 1/1300 cc. antitoxic globulin + 1 test dose toxin, fourteen	
days (Fig. 19)	
Continuation of experiment in figure 19 (Fig. 20)	203
Sensitisation: $1/420$ cc. diphtheria antitoxin + 1 test dose toxin, fourteen	
days (Fig. 21)	
Continuation of figure 21 (Fig. 22)	
Normal uterus. Bath volume 250 cc. (Fig. 23)	
Normal uterus. Bath volume 250 cc. (Fig. 24)	206
Uteri from guinea-pigs sensitised with 0.1 of horse serum hypodermically,	000
with varying incubation periods, as indicated (Fig. 25)	209
Sensitisation: 1/400 cc. antitoxin (horse) + 1 test dose of toxin, fourteen	01.4
days (Fig. 26)	214

ILLUSTRATIONS	vii
solated heart of rabbit (Fig. 1)	229
solated heart of rat (Fig. 2)	
Neutralisation of haemolysin by antihaemolysin (Chart 1)	
Neutralisation of antihaemolysin by haemolysin (Chart 2)	238
Rings of carotid (upper tracing) and coronary (lower tracing) arteries of ox	200
suspended in same Ringer bath (Fig. 1)	247
Ring of ox coronary (Fig. 2)	249
Drawing of microscopic crystals of hederin (Fig. 1)	
Constricting action on peripheral vessels of pithed frog (Fig. 2)	
Rate of flow through peripheral vessel of frog (Fig. 3)	
Effects on arterial blood pressure of intravenous injection of hederin (Fig. 4)	
•	
Effects of hederin in slowing heart-beat (Fig. 5)	275
Showing effect of pressure on abdominal vessels before tying off adrenal glands (Tracing 1)	280
	280
Showing effect of pressure on abdominal vessels after tying off adrenal	001
glands (Tracing 2)	281
To show the influence of acid on the secondary depression of epinephrine	000
(Tracing 3)	
ung shield for the right lung (Fig. 1)	292
ung volume and blood-pressure tracings from a spinal dog (Fig. 2)	297
ung volume and blood pressure, spinal dog (Fig. 3)	302
ung volume and blood-pressure tracings from a spinal dog (Fig. 4)	304
ung volume and blood pressure spinal dog (Fig. 5)	313
ung volume and blood pressure, spinal dog (Fig. 6)	
Action of amanita muscaria upon frog's heart (Chart 1)	
Action of clitocybe sudorifica upon frog's heart (Chart 2)	
Action of inocybe decipiens upon frogs' heart (Chart 3)	
Graphic respresentation of experiment 1 (Fig. 2)	
Chart of the frequency and depth of respiration under CO ₂ (Fig. 3)	
Respiration under vagus stimulation at 25 and 30 cm. (Fig. 4)	
Respiration under stimulation of the superior laryngeal at 27 cm. (Fig. 5)	
Failure of the respiration under urethane (Fig. 6)	385
Respiration under morphine (Fig. 7)	386
Respiration tracing under large dose of chloral (Fig. 8)	387
Apparatus for circulating a small quantity of fluid in an isolated frog's heart	
(Fig. 1)	402
Action of strophanth n upon isolated snake's heart (Fig. 2)	411
Effect of acid upon isolated snake's heart (Fig. 1)	427
Effect of acid upon isolated frog's heart (Fig. 2)	428
Action of strophanthin upon isolated snake's heart (Fig. 3)	429
Action of barium upon isolated snake's heart (Fig. 4)	430
Action of sapotoxin upon isolated snake's heart (Fig. 5)	
At a 0.3 cc. pituitrin injected intravenously ("repeat dose") (Fig. 1)	
At a 0.7 cc. pituitrin injected intravenously (Fig. 2)	
At a 1 cc. pituitrin injected subcutaneously (Fig. 3)	440
The excitant effect of an increase of CaCl ₂ (Fig. 1)	447
The depressant effect of an increase of KCl (Fig. 2)	

ILLUSTRATIONS

The depressant effect of removal of KCl (Fig. 4)	449
The depression of respiratory rhythm in the absence of CaCl2 and KCl	
(Fig. 5)	450
Effect of 1 in 20,000 α tetrahydroberberine methochloride (Fig. 1)	464
Effect of 1 in 20,000 \(\beta \) tetrahydroberberine methochloride (Fig. 2)	465
α and β tetrahydroberberine methochlorides (Fig. 3)	465
α and β l-canadine methochlorides (Fig. 4)	466
Diagram of apparatus and connections for obtaining single induced break	
shocks by means of clock and induction coil (Fig. 5)	469
Suspended frog's heart. Engleman's method (Curve 1)	480
Isolated rabbit's heart. Langendorff's method (Curve 2)	481
Rabbit, 1950 grams. Respiration curve written by means of a Marey Tam-	
bour, connected with a cannula in one nostril of the rabbit (Curve 3)	483
A later injection of helenin in the same experiment as in curve 3 (Curve 4)	483
A. Average volume of each respiration; B. Number of respirations in each	
thirty seconds (Curve 5)	484
Curves made by stimulation of a suspended gastrocnemius mu-cle of a frog	
(Curve 6)	486
Diuretics in uranium nephritis (Plate 1)	516
Uterus of virgin guinea-pig (both horns) (Fig. 1)	520
Uterus of virgin guinea-pig (both horns) (Fig. 2)	521
Uterus of virgin guinea-pig (Fig. 3)	522
Same experiment as figure 3 (Fig. 4)	523
Uterus of virgin guinea-pig (both horns) (Fig. 5)	524
Horn of uterus of normal virgin guinea-pig (Fig. 6)	526
Dose in each case 0.05 mgm. β-Iminazolylethylamine (Fig. 7)	527
Dose in each case 0.01 mgm. β-Iminazolylethylamine (Fig. 8)	528
Dose in each case 0.002 β-Iminazolylethylamine (Fig. 9)	
Dose in each case 0.01 β-Iminazolylethylamine (Fig. 10)	
Dose in each case 0.005 mgm. β-Iminazolylethylamine (Fig. 11)	
Horn of uterus of virgin cat in 250 cc. Ringer II. (Fig. 12)	
Horn of uterus of virgin cat (Fig. 13)	
Action of pennyroyal on the virgin uterus of cat (Fig. 1)	
Pregnant uterus. Oil of tansy. Bufagin does not resuscitate (Fig. 2)	
Effect of apiol on pregnant uterus (Fig. 3)	551
Showing stimulating effect of bufagin and paralyzing effects of oleum hede-	
omae (pennyroyal) (Fig. 4)	552