## CONTENTS

### Number 1, October, 1916

I. How Rapidly Does the Intact Thyroid Gland Elaborate its Specific Iodin Containing Hormone? By David Marine and J. M. Rogoff ..... 1  
II. The Antagonism Between Atropin and Certain Central Emetics. By Cary Eggleston ..... 11  
III. The Elimination of Strychnin by the Kidneys. By Robert A. Hatcher and Maurice I. Smith ..... 27  
IV. A Contribution to the Pharmacology of Aconitum heterophylloides, A. nagarum and A. napellus. By Thomas R. Fraser ..... 43  
V. Effect on Tadpoles of Feeding Thyroid Products Obtained by Alkaline Hydrolysis. By J. M. Rogoff and David Marine ..... 57

### Number 2, November, 1916

VI. On the Secretion of Lymph. By H. Yahagawa ..... 75  
VII. Trichlor-tertiarybutyl Alcohol Anesthesia. By L. W. Rowe ..... 107  
VIII. The Pharmacology of the Seminal Vesicles. By J. A. Waddell ..... 113  
IX. Action of Opium Alkaloids on the Ducts of the Testis. By David I. Macht ..... 121

### Number 3, December, 1916

X. The Rôle of the Liver in Acute Polycythaemia. IV. Further Observations on the Effect of Shutting off the Arterial Blood Supply to the Liver, the Reaction of the Normal Animal to Epinephrin and Removal of the Liver from the Circulation. By Paul D. Lamson ..... 129  
XI. Can Adenine Acquire Antineuritic Properties. By Carl Voegtlin and George F. White ..... 155  
XII. The Action of Strychnine on Certain Invertebrates. By A. R. Moore ..... 167  
XIII. The Pharmacology of the Uterus Masculinus. By J. A. Waddell ..... 171  
XIV. The Pharmacology of the Prostate. By J. A. Waddell ..... 179  
XV. Observations of the Effects of Drugs on the Ileo-Colic Sphincter. By Mikizo Kuroda ..... 187  
XVI. On the Pharmacology of the Ureter. III. Action of the Opium Alkaloids. By David I. Macht ..... 197

### Number 4, January, 1917

XVIII. A New Time Marker. By C. C. Lieb ..... 227
CONTENTS

XIX. A Contribution to the Pharmacology of Stovaine. By Maurice I. Smith and Robert A. Hatcher ............ 231
XX. The Elimination of Hexamethylenetetramine (Urotropin) as an Index of Renal Function. By K. George Falk and Kanematsu Sugiura ............ 241

Number 5, February, 1917

XXI. The Salicylates. V. Excretion of Saucy! in the Urines of Rheumatic and Non-rheumatic Individuals. By P. J. Hanzlik, R. W. Scott and T. W. Thoburn .............................................. 247
XXII. The Fate of Iodin, Iodide, and Iodates in the Body. By Torald Sollmann .............................................. 269

Number 6, March, 1917

XXIII. The Effects of Strychnine, Cocaine and Quinine on the Vas Deferens. By J. A. Waddell ............ 279
XXIV. On the Pharmacology of the Ureter. IV. Action of Hydrastin, Hydrastinin Cotarnin, Emetin and Some Pyridin Derivatives, with a Further Analysis of the Opium Action. By David I. Macht ............ 287
XXV. A Device for Overcoming Clotting During Direct Blood Pressure Experiments. By W. H. MacCraken and I. Werness .............................................. 305
XXVI. Endermic Reactions. I. By Torald Sollmann and J. D. Pilcher ............ 309
XXVII. Scientific Proceedings of the American Society for Pharmacology and Experimental Therapeutics. Eighth Annual Meeting ............ 341

Number 7, April, 1917

XXVIII. The Action of Strychnine in Certain Types of Cardiac Irregularities. By Maurice I. Smith ............ 365
XXIX. Endermic Reactions. II. Urticaria by Amins and Aromatic and Urea Derivatives. By Torald Sollmann .............................................. 391
XXX. The Proportion in Which Adrenalin Distributes Itself Between Corpuscles and Serum in Relation to the Technique of Testing for Epinephrin in Blood. By G. N. Stewart and J. M. Rogoff ............ 393
XXXI. The Pharmacology of the Vagina. By J. A. Waddell ............ 411

Number 8, May, 1917

XXXII. On the Pharmacology of the Ureter. V. Action of Nitrates and Nitrites. By David I. Macht ............ 427
XXXIV. Effect of Alcohol on the Respiration and the Gaseous Metabolism in Man. By Harold Higgins ............ 441
XXXV. On the Comparative Effects of the Opium Alkaloids Individually and in Combination with Each Other on the Gall Bladder. By David I. Macht ............ 473
XXXVI. The Vascular Reactions in Experimental Acute Tartrate Nephritis. By Howard T. Karsner ............ 483
CONTENTS

NUMBER 9, JUNE, 1917

XXXVII. The Action of Sodium Citrate on the Isolated Intestine. By William Salant and E. W. Schwartze ........................................ 497


XXXIX. The Production of Renal Changes by Oil of Chenopodium and Fatty Oils, and the Protective Action of Diet on the Kidneys. By William Salant and Robert Bengis .................................................. 529
ILLUSTRATIONS

Times emetic dose of pilocarpin (Chart) .................................................. 14
Distended urinary bladder after administration of aconitum heterophylloid
(Fig. 1) ........................................................................................................ 50
After 7 days feeding with iodin-free hyperplastic lamb thyroid, etc. (Fig. 1) . 61
— 7 days feeding with iodin-free product “A,” etc. (Fig. 2) ....................... 61
— 7 days with ox thyroid, etc. (Fig. 3) ...................................................... 62
— 7 days feeding with ox thyroid product “A,” etc. (Fig. 4) ..................... 62
— 7 days feeding with sheep thyroid product “A,” etc. (Fig. 5) ............... 63
Control experiment, etc. (Fig. 6) .............................................................. 66
After 13 days feeding with ox thyroid product “B,” etc. (Fig. 7) ............. 66
— 13 days feeding with sheep thyroid product “B,” etc. (Fig. 8) ............. 67
— 13 days feeding with hyperplastic lamb thyroid product “B,” etc. (Fig. 9) . 67
— 13 days feeding with hyperplastic lamb thyroid product “B,” etc.
(Fig. 10) .................................................................................................... 68
— 13 days feeding with hyperplastic thyroid product “B,” etc. (Fig. 11) .... 68
Seminal vesicle of guinea pig, suspended in Tyrode’s solution (Fig. 1) ...... 115
— vesicle of rat, suspended in Ringer’s solution (Fig. 2) ......................... 116
— vesicle of guinea pig, suspended in Tyrode’s solution (Fig. 3) .......... 117
— vesicle of guinea pig, suspended in Tyrode’s solution (Fig. 4) .......... 117
— vesicle of guinea pig, suspended in Tyrode’s solution (Fig. 5) .......... 118
— vesicle of rat, suspended in Ringer’s solution (Fig. 6) ...................... 118
Rabbit’s vas deferens (Fig. 1) .................................................................. 124
— vas deferens (Fig. 2) ........................................................................... 124
Ejaculatory duct of sheep (Fig. 3) ............................................................. 124
Seminal vesicle of guinea pig (Fig. 4) ...................................................... 125
— vesicle of guinea pig (Fig. 5) ............................................................... 125
In this figure the normal animal, etc. (Fig. 1) ....................................... 149
— animal the stomach, intestine, etc. (Fig. 2) ........................................ 149
Animal cut in two transversely, etc. (Fig. 3) ....................................... 150
— cut transversely, etc. (Fig. 4) ............................................................... 150
Two conditions in normal animal, etc. (Fig. 5) .................................... 151
— in which the arterial blood supply to the liver has been shut off, etc.
(Fig. 6) ..................................................................................................... 152
— in which the liver has been functionally removed, etc. (Fig. 7) ........ 152
Uterus masculinus of rabbit, suspended in Tyrode’s solution (Fig. 1) .... 172
— of rabbit, suspended in Tyrode’s solution (Fig. 2) ............................ 173
— of rabbit, suspended in Tyrode’s solution (Fig. 3) ............................ 175
— of rabbit, suspended in Tyrode’s solution (Fig. 4) ............................ 175
— of rabbit, suspended in Tyrode’s solution (Fig. 5) ............................ 176
— of rabbit, suspended in Tyrode’s solution (Fig. 6) ............................ 177
— of rabbit, suspended in Tyrode’s solution (Fig. 7) ............................ 177
ILLUSTRATIONS

Prostate of rabbit, suspended in Tyrode's solution (Fig. 1) 182
— of cat, suspended in Tyrode’s solution (Fig. 2) 182
— of rat, suspended in Ringer’s solution (Fig. 3) 183
— of rabbit, suspended in Tyrode's solution (Fig. 4) 183
— of rabbit, suspended in Tyrode’s solution (Fig. 5) 184
— of cat, suspended in Tyrode’s solution (Fig. 7) 185

Cat (Fig. 1) 188
— (Fig. 2) 189
— (Fig. 3) 189
— (Fig. 4) 190

Cocaine effect, etc. (Fig. 5) 191
Adrenaline effect, etc. (Fig. 6) 192
Increased tone, etc. (Fig. 7) 192
Excitement effect, etc. (Fig. 8) 198
Nicotine effect, etc. (Fig. 9) 193

Pig’s ureter (Fig. 1) 198
— ureter (Fig. 2) 198
— ureter (Fig. 3) 199
— ureter (Fig. 4) 199
— ureter (Fig. 5) 200
— ureter (Fig. 6) 200
— ureter (Fig. 7) 200
— ureter (Fig. 8) 200
— ureter (Fig. 9) 200
— ureter (Fig. 10) 200
— ureter (Fig. 11) 200
— ureter (Fig. 12) 200
— ureter (Fig. 13) 200
— ureter (Fig. 14) 200
— ureter (Fig. 15) 200
— ureter (Fig. 16) 200
— ureter (Fig. 17) 200
— ureter (Fig. 18) 200
— ureter (Fig. 19) 200
— ureter (Fig. 20) 200
— ureter (Fig. 21) 200
— ureter (Fig. 22) 200
— ureter (Fig. 23) 200
— ureter (Fig. 24) 200
— ureter (Fig. 25) 200
— ureter (Fig. 26) 200

Ring of human ureter (Fig. 27) 211

Pig’s ureter (Fig. 28) 212
— ureter (Fig. 29) 213
— ureter (Fig. 30) 214
— ureter (Fig. 1) 228
— ureter (Fig. 2) 229
<table>
<thead>
<tr>
<th>ILLUSTRATIONS</th>
<th>ix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfusion of the rabbit's heart (Fig. 1)</td>
<td>233</td>
</tr>
<tr>
<td>Percentage excretion of salicyl, etc. (Fig 1)</td>
<td>254</td>
</tr>
<tr>
<td>Total quantity of salicyl excreted, etc. (Fig 2)</td>
<td>255</td>
</tr>
<tr>
<td>Percentage concentration of salicyl, etc. (Fig. 3)</td>
<td>257</td>
</tr>
<tr>
<td>Excretion of urine, etc. (Fig. 4)</td>
<td>257</td>
</tr>
<tr>
<td>Pig's ureter (Fig. 1)</td>
<td>289</td>
</tr>
<tr>
<td>—— ureter (Fig. 2)</td>
<td>289</td>
</tr>
<tr>
<td>—— ureter (Fig. 3)</td>
<td>289</td>
</tr>
<tr>
<td>—— ureter (Fig. 4)</td>
<td>289</td>
</tr>
<tr>
<td>—— ureter (Fig. 5)</td>
<td>289</td>
</tr>
<tr>
<td>—— ureter (Fig. 6)</td>
<td>289</td>
</tr>
<tr>
<td>—— ureter (Fig. 7)</td>
<td>293</td>
</tr>
<tr>
<td>—— ureter (Fig. 8)</td>
<td>293</td>
</tr>
<tr>
<td>—— ureter (Fig. 9)</td>
<td>293</td>
</tr>
<tr>
<td>—— ureter (Fig. 10)</td>
<td>293</td>
</tr>
<tr>
<td>—— ureter (Fig. 11)</td>
<td>293</td>
</tr>
<tr>
<td>—— ureter (Fig. 12)</td>
<td>295</td>
</tr>
<tr>
<td>—— ureter (Fig. 13)</td>
<td>295</td>
</tr>
<tr>
<td>—— ureter (Fig. 14)</td>
<td>296</td>
</tr>
<tr>
<td>—— ureter (Fig. 15)</td>
<td>296</td>
</tr>
<tr>
<td>—— ureter (Fig. 16)</td>
<td>296</td>
</tr>
<tr>
<td>—— ureter (Fig. 17)</td>
<td>296</td>
</tr>
<tr>
<td>—— ureter (Fig. 18)</td>
<td>296</td>
</tr>
<tr>
<td>—— ureter (Fig. 19)</td>
<td>296</td>
</tr>
<tr>
<td>—— ureter (Fig. 20)</td>
<td>300</td>
</tr>
<tr>
<td>—— ureter (Fig. 21)</td>
<td>300</td>
</tr>
<tr>
<td>—— ureter (Fig. 22)</td>
<td>301</td>
</tr>
<tr>
<td>—— ureter (Fig. 23)</td>
<td>301</td>
</tr>
<tr>
<td>Urticaria, etc. (Fig. 1)</td>
<td>312</td>
</tr>
<tr>
<td>Reactions of intact skin (Fig. 2)</td>
<td>312</td>
</tr>
<tr>
<td>Epinephrin blanching, etc., (Fig. 3)</td>
<td>320</td>
</tr>
<tr>
<td>Frog's heart perfused, etc. (Fig. 1)</td>
<td>370</td>
</tr>
<tr>
<td>Rabbit's heart perfused, etc. (Fig. 2)</td>
<td>370</td>
</tr>
<tr>
<td>—— heart perfused, etc. (Fig. 3)</td>
<td>372</td>
</tr>
<tr>
<td>Perfusion of frog's heart, etc. (Fig. 4)</td>
<td>372</td>
</tr>
<tr>
<td>Frog's heart perfused, etc. (Fig. 5)</td>
<td>375</td>
</tr>
<tr>
<td>Perfusion of rabbit's heart (Fig. 6)</td>
<td>377</td>
</tr>
<tr>
<td>Rabbit's heart perfused, etc. (Fig. 7)</td>
<td>379</td>
</tr>
<tr>
<td>Frog's heart perfused, etc. (Fig. 8)</td>
<td>380</td>
</tr>
<tr>
<td>—— heart perfused, etc. (Fig. 9)</td>
<td>381</td>
</tr>
<tr>
<td>Perfusion of the rabbit's heart (Fig. 10)</td>
<td>381</td>
</tr>
<tr>
<td>Frog's heart perfused, etc. (Fig. 11)</td>
<td>384</td>
</tr>
<tr>
<td>Action of adrenalin, etc. (Fig. 1)</td>
<td>387</td>
</tr>
<tr>
<td>—— of adrenalin, etc. (Fig. 2)</td>
<td>394</td>
</tr>
<tr>
<td>Comparison of serum, etc. (Fig. 3)</td>
<td>397</td>
</tr>
<tr>
<td>Specimens of blood pressure tracings, etc. (Fig. 4)</td>
<td>399</td>
</tr>
<tr>
<td>Comparison of effects produced, etc. (Fig. 5)</td>
<td>399</td>
</tr>
</tbody>
</table>
ILLUSTRATIONS

Blood pressure tracings, etc. (Fig. 6) ........................................ 400
Rabbit intestine segment (Fig. 7) ........................................ 401
— uterus segment (Fig. 8) ........................................ 401
Comparison of effect, etc. (Fig. 9) ........................................ 403
Rabbit intestine segment (Fig. 10) ........................................ 404
Ringer was replaced by, etc. (Fig. 11) ........................................ 404
Rabbit intestine segment (Fig. 12) ........................................ 406
— intestine segment (Fig. 13) ........................................ 406
— intestine segment (Fig. 14) ........................................ 407
Effect of adrenal blood, etc. (Fig. 15) ........................................ 407
Rabbit intestine segment tests, etc. (Fig. 16) ........................................ 408
Effect of the sera, etc. (Fig. 17) ........................................ 409
Vagina of rabbit (Fig. 1) ........................................ 415
— of cow (Fig. 2) ........................................ 415
— of rat (Fig. 3) ........................................ 415
— of cat (Fig. 4) ........................................ 416
— of sow (Fig. 5) ........................................ 416
— of rabbit (Fig. 6) ........................................ 417
— of cat (Fig. 7) ........................................ 418
— of rabbit (Fig. 8) ........................................ 419
— of rabbit (Fig. 9) ........................................ 421
— of rabbit (Fig. 10) ........................................ 421
— of rabbit (Fig. 11) ........................................ 422
— of rabbit (Fig. 12) ........................................ 423
— of rabbit (Fig. 13) ........................................ 424
— of dog (Fig. 14) ........................................ 424
Pig’s ureter (Fig. 1) ........................................ 429
— ureter (Fig. 2) ........................................ 429
— ureter (Fig. 3) ........................................ 429
Normal contraction, etc. (Fig. 1) ........................................ 434
After having been immersed, etc. (Fig. 2) ........................................ 435
Curve showing the behavior, etc. (Fig. 3) ........................................ 435
The curve, etc. (Fig. 4) ........................................ 437
Normal effect of epinephrin solutions, etc. (Fig. 5) ........................................ 438
Isolated gall bladder, etc. (Fig. 1) ........................................ 475
Strip of cat’s gall bladder, etc. (Fig. 2) ........................................ 475
Isolated gall bladder of dog (Fig. 3) ........................................ 476
Strip of cat’s gall bladder, etc. (Fig. 4) ........................................ 476
— of dog’s gall bladder (Fig. 5) ........................................ 476
— of cat’s gall bladder, etc. (Fig. 6) ........................................ 477
Cat’s gall bladder in situ (Fig. 7) ........................................ 478
Dog’s gall bladder in situ (Fig. 8) ........................................ 478
— gall bladder in situ (Fig. 9) ........................................ 479
— gall bladder in situ (Fig. 10) ........................................ 479
Normal dog A (tracing 1) ........................................ facing 486
Dog 8 in second day of tartrate nephritis (tracing 2) ........................................ facing 486
Rabbit 2315 A (Fig. 1) ........................................ 499
— 2285 A (Fig. 2) ........................................ 500
— 2326 A (Fig. 3) ........................................ 504
ILLUSTRATIONS

Cat 483a (Fig. 4) .................................................. 505
Rabbit 2379 Ia (Fig. 1) ........................................... 513
  2353 Ib (Fig. 2) ............................................... 515
  2342 Ib (Fig. 3) ............................................... 519
  2349 IIB (Fig. 4) ............................................. 520