

SCIENCE

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<i>Some Chemical Bearings of Pharmacology:</i> PROFESSOR HENRY G. BARBOUR.....	335
<i>The Present Situation in the Radium Industry:</i> H. E. BISHOP.....	341
<i>Changes in the Longevity of Americans in the Last Decade:</i> PROFESSOR C. H. FORSYTH	345
<i>The Oklahoma-Texas Boundary Suit:</i> DR. E. H. SELLARDS.....	346
<i>Chauncey William Waggoner</i>	349
<i>Scientific Events:</i>	
<i>Animal Pathology at the University of Cambridge; The Sterling Chemistry Laboratory of Yale University; The Circulation of Agricultural News; The Engineering Societies Library; Committee Meeting on Standardization of Stains; The Solar Eclipse of September 10; Award to Professor Michelson</i>	350
<i>Scientific Notes and News</i>	355
<i>University and Educational Notes</i>	356
<i>Discussion and Correspondence:</i>	
<i>An Exceptionally Dark Day in New York:</i> DR. GEORGE A. SOPER. <i>The Mass Law and Statistical Equilibrium:</i> DR. WORTH H. RODEBUSH. <i>What is a Plant?</i> DR. L. H. TIFFANY. <i>That Plant:</i> DR. HENRY S. CONARD. "Erobic": DR. W. W. KEEN.....	357
<i>Quotations:</i>	
<i>Gift to the Royal Society</i>	360
<i>Scientific Books:</i>	
<i>Dr. Jordan's Autobiography:</i> DR. VERNON KELLOGG	361
<i>Special Articles:</i>	
<i>Use of the Carbon Dioxide Freezing Attachment on the Rotary Microtome:</i> DR. RICHARD HOLMAN.....	363
<i>The American Mathematical Society:</i> PROFESSOR R. G. D. RICHARDSON.....	364

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SOME CHEMICAL BEARINGS OF PHARMACOLOGY¹

PROBABLY the best definition of pharmacology is that which describes it as the study of the action of chemical substances upon living things. Pharmacological problems, therefore, fall into three groups, namely, those which relate (1) to the chemical substances (usually drugs or poisons), (2) to the living things (which may be anything from simple cells to highly complex organisms), and (3) to the reaction between the one and the other. Evidently then a pharmacological problem without a chemical bearing must indeed be superficial.

With regard to the problems of the first group—those relating solely to the chemistry of pharmacological agents—I will call your attention to a chemical classification of drugs which appears to differ from any which have previously been suggested. It should be of interest to every chemist desiring to advance our knowledge of drugs. In the following classes are included only substances whose value in the treatment of disease is at present above question, or likely to be soon established. Suggestiveness rather than completeness is the intent of this presentation.

A CLASSIFICATION OF PHARMACOLOGICAL AGENTS ACCORDING TO THE STATE OF PRESENT KNOWLEDGE OF THEIR CHEMISTRY

1. Substances from which no pure chemical principle has as yet been isolated:

Pituitary
Insulin
Secretin
Anti-venoms
Anti-toxins

2. Substances which contain definitely isolated chemical principles, but which are employed by preference in impure forms empirically found more effective:

Digitalis
(Digitoxin)

¹ An address before the McGill Chemical Society, December 8, 1922.

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Each class is limited to 75 students, men and women being admitted on the same terms. **Except in unusual circumstances, applications for admission will not be considered after July 1st.**

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The annual announcement and application blanks may be obtained by addressing the

Dean of the Johns Hopkins Medical School,
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Dean, Yale University School of
Medicine

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GEO. M. GRAY,
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