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A. RICHARD BLISS, JR.

(A BIOGRAPHY)

P. D. WADDELL

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A. RICHARD BLISS, JR.

By P. B. Waddell, A.B., M.D., Cisco, Texas; formerly Assistant, Division of Pharmacology, Emory University School of Medicine, 1919-1923; Instructor, Division of Pharmacology, University of Tennessee, 1923-32. Data concerning Dr. Bliss abstracted from *Who's Who Among North American Authors*, *Who's Who in American Medicine*, *Who's Who in American Education*, *Leaders in Education*, *The National Cyclopaedia of American Biography*, *American Men of Science*.

A. Richard Bliss, Jr., was born in New York City on November 10, 1889, the son of Andrew Richard Bliss and Frances Revue (Sutton) Bliss. He is a direct descendant of John Blisse, who came from Kent, England, to Brooklyn, New York, in 1821, a descendant of John Blisse (B.A., 1507, M.A., 1511-12, D.Med., 1527-28, Oxford University, Fellow



A. RICHARD BLISS, JR., A.M., PH.M.D., M.D., LL.D.

Member of the U. S. Pharmacopoeia Committee of Revision; Director of The Reelfoot Lake Biological Station, Reelfoot Lake, Tennessee; Professor of Pharmacology and Dean of the School of Pharmacy of Howard College of Birmingham, Alabama.



Dr. Bliss when a left tackle at Columbia University



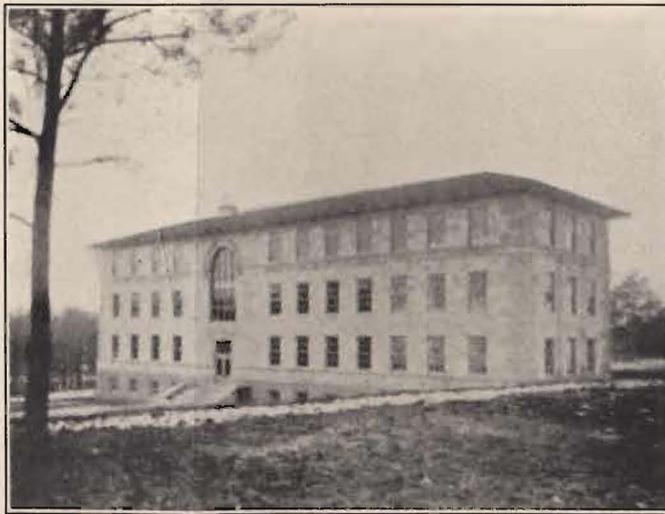
Dr. Bliss as a Lieutenant in the U. S. Army Medical Department during the World War.

of College of Physicians, London, 1529), a learned physician and astronomer, guardian of Danver's chest in 1513, who practiced in London, and died at Blackfriars in 1530; and of John Blisse (B.A., Pembroke College, Cambridge, 1622, M.A., Oxford University, 1626), Rector of Colmworth, Bedfordshire, England, who died at Colmworth in 1651.

Dr. Bliss was educated in Public School No. 15, New York City; DeWitt Clinton High School, New York City; New York College of Pharmacy; Columbia University; Howard College of Birmingham, Alabama; and the University of Alabama. He received the following degrees: Ph.G., New York College of Pharmacy; Ph.Ch., B.S., Ph.M.D., Columbia University; A.M., Howard College of Birmingham, Alabama; and M.D., University of Alabama. In May 1932 Howard College of Birmingham, Alabama, conferred the degree of LL.D. on him in recognition of his contributions to science and to education. When Columbia University established the plan of recognizing "conspicuous service" rendered by alumni, Dr. Bliss was one of the very first group to be so



BIRMINGHAM MEDICAL COLLEGE
(Merged with University of Alabama)
(Pharmacology and Pharmacy Laboratories built and equipped by Bliss.)



THE FISHBURNE LABORATORIES OF PHARMACOLOGY AND
PHYSIOLOGY, EMORY UNIVERSITY, SCHOOL OF MEDICINE
[Laboratories of Pharmacology designed and equipped by Dr. Bliss
(two floors).]



UNIVERSITY OF TENNESSEE, ANATOMY BUILDING (60x180)
(One and one-half floors and Animal House on roof arranged and
equipped by Dr. Bliss.)



UNIVERSITY OF TENNESSEE PHARMACOLOGY-PHARMACY
BUILDING (60x180)
(Arranged and equipped complete by Dr. Bliss.)



SCHOOL OF PHARMACY BUILDING, HOWARD COLLEGE OF BIRMINGHAM, ALABAMA
Laboratories of Pharmacology and Pharmacy designed and equipped by Dr. Bliss

recognized and to receive the "Conspicuous Service Medal" at commencement, 1933.

During the period of his graduate work at Columbia, he acted as special assistant to Dr. William Mansfield, who was then associate professor of materia medica in Columbia University, and who is now dean of the College of Pharmacy of Union University at Albany, New York. After receiving his doctorate at Columbia, he accepted a call to the



VIEW OF THE JOHN T. MCGILL LABORATORY BUILDING, REELFOOT LAKE BIOLOGICAL STATION, TENNESSEE
(Arranged and equipped by Dr. Bliss.)



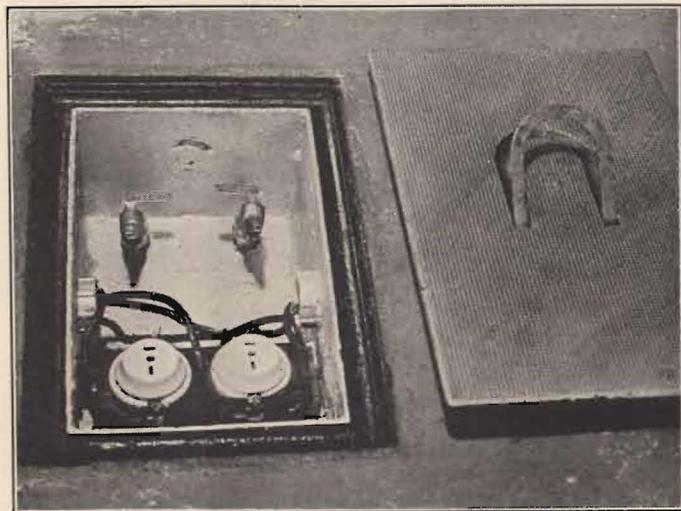
A STUDENT LABORATORY OF PHARMACOLOGY
Showing tables designed by Dr. Bliss



A DISPENSING LABORATORY
Equipped with tables designed by Dr. Bliss

University of Alabama at Tuscaloosa as adjunct professor of chemistry and pharmacology. From there he moved on to the Birmingham divisions of the university as professor of chemistry and pharmacology in the medical, dental, and pharmaceutical schools, and later as dean of the College of Pharmacy and professor of biochemistry and pharmacology in the Graduate School of Medicine of the University of Alabama.

Dr. Bliss was called from Birmingham, at the beginning of session 1915-16, to the chair of pharmacology in the School of Medicine of



"FLOOR BOX" AND COVER, SHOWING ELECTRICAL,
COMPRESSED AIR AND GAS OUTLETS

Devised by Dr. Bliss. One box is provided for each
pharmacology laboratory table.

Emory University in Atlanta, where he remained until 1923, when he accepted a call to the University of Tennessee at Memphis as chief of the division of physiology and pharmacology in the College of Medicine. In 1925 he was selected also as dean of the School of Pharmacy. When the state of Tennessee established the Reelfoot Lake Biological Station at Reelfoot Lake, Tennessee, and placed the station under the direction and control of the Tennessee Academy of Science in 1931, Dr. Bliss was appointed director of the station. At the end of session 1932-33, he resigned from the University of Tennessee, at Memphis, and for the past two sessions has been in Birmingham, Alabama, where he was called as head of the department of pharmacology and dean of the School of Pharmacy in Howard College of that city. He continues also as director of the Reelfoot Lake Biological Station.

Dr. Bliss has contributed over one hundred articles to scientific and educational literature, and is the author of five text and reference books:

viz., "Qualitative Analysis" (six revisions, the last two with Hugo H. Schaefer of Columbia University); "Essentials of Physiology" (three revisions, with George Bachmann of Emory University); "Physics and Chemistry for Nurses" (with A. H. Olive of Cornell and Alabama; four revisions); "The Properties and Uses of Drugs" (two revisions, with H. H. Rusby and C. W. Ballard of Columbia University); and "Experimental Pharmacodynamics" (seven revisions). He has not only gained a wide reputation as an educator, author, and research worker,

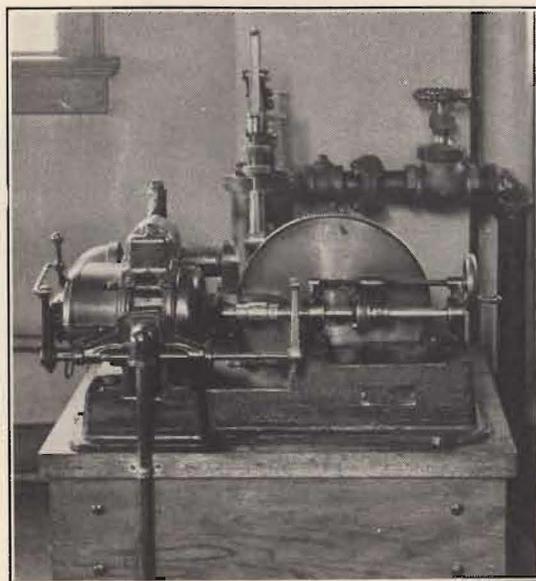


ANIMAL CAGE, STEEL, BAKED ENAMEL (5x5x5)
Invented by Bliss & Bliss

but also as an organizer of scientific departments, a builder of laboratory buildings, and an inventor of scientific apparatus.

At the University of Alabama, he organized and developed the first department of pharmacology which offered experimental laboratory work in that medical school, reorganized and developed the College of Pharmacy, built new pharmaceutical laboratories, and, with Dr. B. F. Lovelless, planned a new chemical laboratory building at Tuscaloosa. At Emory University he completely reorganized and developed the department of pharmacology in the medical school, and, with Dr. George Bachmann, built the four-story T. T. Fishburne Laboratories of Physiology and Pharmacology, one of the first buildings on the new campus. At the University of Tennessee, in Memphis, he reorganized and developed the division of physiology and pharmacology in the medical school; completely reorganized and developed the pharmacy school and established it on the same basis as the medical and the dental schools; planned

and built the quarters (one and a half stories) of his division in the new Anatomical Building (60 × 180); and planned and built the entire new four-story Pharmacology-Pharmacy Building (60 × 180). At Reelfoot Lake, he remodeled the 30 × 60 building which became the John T. McGill Laboratory Building, and completely equipped its five laboratories and auxiliary rooms. He planned and built the research laboratories of the William A. Webster Chemical Company of Memphis. Dr. Bliss planned, and is now engaged in building, the new three-story



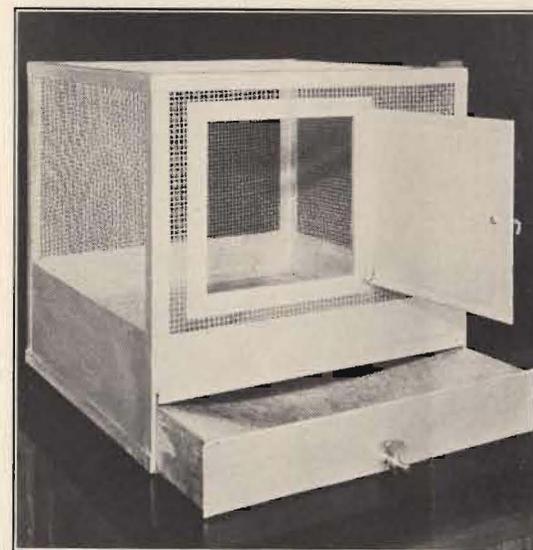
AIR INTERRUPTER WHICH SUPPLIES FORTY STUDENT LABORATORY TABLES WITH AIR CURRENT FOR ANY TYPE OF ARTIFICIAL RESPIRATION
Devised by Dr. Bliss

laboratory building for the School of Pharmacy of Howard College of Birmingham. With Dr. George Bachmann, he devised a system for the distribution of low voltage electrical current and of compressed air for artificial respiration in animal experimentation, and a student laboratory table for pharmacological and physiological work. He designed and built new type student laboratory tables for pharmacognostical and pharmaceutical work.

The appended list of Dr. Bliss's published works gives the scope of his investigations and researches. Among them are the establishment of the efficacy of Western Oil of Chenopodium, a method for separating quinine and strychnine in common solution, the determination of strychnine

in tablets, an assay for stramonium ointment, the isolation of an anesthetic constituent of Kava, a comparative study of viosterol and cod liver oil (with Nelson and Prather), a new method for standardizing paregoric (with Rosin and others), an assay of nuxvomica (with Morrison), assays of oleoresin of aspidium (with Pabst), the influence of vitamins on the formation of renal calculi (with Livermore and Prather), the diuretic properties of certain xanthines (with Morrison), the absorption of calcium compounds (with Morrison and Prather), the absorption of drugs from the skin, etc.

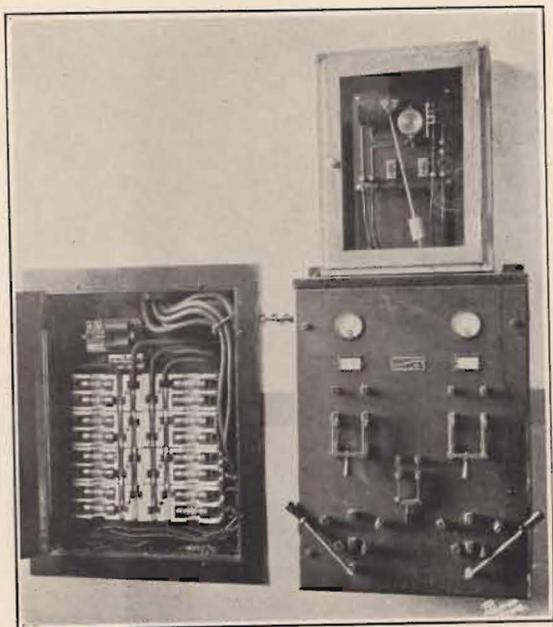
In 1917 he was appointed by Dr. Alsberg of the federal Bureau of



METABOLIC CAGE FOR SMALL ANIMALS
(24 × 24 × 24) Designed by Dr. Bliss

Chemistry referee on alkaloids of the Association of Official Agricultural Chemists, and served in that capacity until 1930. He was selected to conduct the pharmacological and physiological studies for the Educational Research Committee of the Commonwealth Fund's study of pharmacy from a functional standpoint, the first functional professional study made. He is a member of the Committees on Methods and Documents, Data, Pharmacology and Pharmacy, Physiology and Pathology of the World Conference on Narcotic Education. For seven years he was chairman of the sub-committee on bacteriology, immunology, and endocrinology of the National Conference on Pharmaceutical Research. He served as an auxiliary member of the U. S. Pharmacopoeia X Committee of Revision, and assisted with the revision of the National Formulary V. In May 1930 he was elected one of the fifty scientists who constitute

the Committee of Revision of the U. S. Pharmacopoeia XI, and is chairman of the group committee on opium assays and chairman of the group committee on the assay of aspidium. He has rendered assistance also with the revision of the N. F. VI and the Recipe Book of the American Pharmaceutical Association. For three years he has functioned as a member of the Board of Editors of *The Chemical Formulary*. He has served as a member and as chairman of a number of committees of the various associations and societies of which he is a member, including the Scientific Section and the Committee on a Pharmacy Corps in the



HARVARD CLOCK AND "HOOK-UP" FOR DISTRIBUTING LOW VOLTAGE CURRENTS (2, 4, AND 6 VOLTS), STEADY AND INTERRUPTED TO 40 STUDENT TABLES
Devised by Dr. Bliss

U. S. Army of the American Pharmaceutical Association; chairman of the Army Corps Committee (for five years), a member of the group which assisted in revising *The Pharmaceutical Syllabus* (pharmacology, experimental pharmacodynamics, and biological assaying outlines), and chairman of the pharmacology and pharmacognosy conference of the American Association of Colleges of Pharmacy.

During the World War he was commissioned a lieutenant in the Medical Department of the U. S. Army, and was assigned to a corps of scientists organized by Van Slyke of the Rockefeller Institute for the

Adjutant General of the Army. Following his discharge from the Army, he was commissioned a Passed Assistant Surgeon (Associate Pharmacologist) in the U. S. Public Health Service Reserve.

Dr. Bliss is a member of Kappa Alpha, the American Legion, the Columbia University Club (New York), University Club of Memphis, Memphis Drug Club (secretary for five years), City Club of Memphis, Memphis Chamber of Commerce, Rotary Club of Memphis, Army and Navy Club, Knights Templar, 32nd degree Scottish Rite, Shrine, Square and Compass Fraternity, Theta Kappa Psi Medical Fraternity (national officer for 20 years), Kappa Psi Pharmaceutical Fraternity (national officer for 25 years), Asklepios Honor Medical Society, Sigma Tau Delta Professional English Fraternity, Pi Gamma Mu Social Science Fraternity, Theta Nu Epsilon, etc. He is a fellow of the American Institute of Chemists (contributing editor, *The Chemist*), the American Association for the Advancement of Science, the American Academy of Political and Social Science, the American Museum of Natural History, and the American Geographical Society of New York. He is a member of the American Chemical Society (secretary, vice-president, Alabama Section), the American Pharmaceutical Association, the Tennessee Academy of Science (vice-president, president, associate editor of the *Journal*), the Association of Official Agricultural Chemists, the Biochemical Association (associate editor, *The Bulletin*), Annual Conference of Biochemists, the American Association for Medical Progress, Science League of America, Medical Association of Georgia, World Conference on Narcotic Education, Medical Authors Club of Memphis, International Narcotic Education Association, Iota Sigma Honorary Fraternity, Birmingham Retail Druggists Association, Tennessee Pharmaceutical Association, Alabama Pharmaceutical Association, etc. He is president of the Columbia Alumni Club of Memphis, past president of the Kappa Alpha Alumni Association of Memphis, of the Alabama Club of Memphis, of the Howard College (Birmingham) Club of Memphis, and of the Churchmen's Club of Memphis. He is a member of the Episcopal Church, a member of the Chapter of The Gailor Memorial Cathedral (St. Mary's) of Memphis, and a member of the Bishop and Council of the Diocese of Tennessee. Dr. Bliss married Miss Loretta Ann Deering, a talented writer and poet, whose name appears in *Who's Who Among North American Authors* and in *American Women*. She is a daughter of the late John Deering, a well-known engineer of New York City.

PUBLICATIONS OF A. RICHARD BLISS, JR.

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2. "Pharmacodynamics in Schools and Colleges of Pharmacy," *Jour. A.Ph.A.*, 9:4, April, 1920.
3. "Proposed Vegetable Drug Deletions," *The Medical Record* (N.Y.), Aug., 1920.
4. "Drug Deletions," *Jour. A.Ph.A.*, 9:8, Aug., 1920.

5. "Experimental Pharmacodynamics for Students of Pharmacy," *Jour. A.Ph.A.*, 9:11, Nov., 1920.
6. "Reports on Alkaloids for 1920," *Jour. A.O.A.C.*, 4:3, Feb., 1921.
7. "The Estimation of Quinine and Strychnine in Common Solution," *Jour. A.O.A.C.*, 4:3, Feb., 1921.
8. "The Need for an Improved Formula for Infusion of Digitalis," *Jour. A.Ph.A.*, 10:10, Oct., 1921.
9. "An Experimental Investigation of the Pharmacologic Activity of Drug Store Samples of Infusion of Digitalis, U.S.P.," *Jour. of Lab. & Clin. Med.*, 7:4, Jan., 1922.
10. "Report on Alkaloids for 1921-22," *Jour. A.O.A.C.*, 5:4, May, 1922.
11. "A Smaller U. S. Pharmacopoeia," *Jour. A.Ph.A.*, 9:7, July, 1922.
12. "A Condensed Pharmacopoeia," *The Medical Review of Reviews*, 28:11, Nov., 1922.
13. "A Method for Assaying Unguentum Stramonii," *Jour. A.Ph.A.*, 12:3, March, 1923; also *Jour. A.O.A.C.*, 7:1, 1923.
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16. "Report on Alkaloids for 1924," *Jour. A.O.A.C.*, 8:1, 1924.
17. "Cathartics and the Pharmacist," *The Pharmaceutical Era*, 60:5, 1925.
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27. "Address before the Tennessee Pharmaceutical Association," *The Druggist*, Aug., 1928.
28. "Report of Committee on Research for 1928," *Proc. Amer. Assoc. Col. of Phar.*, 1928.
29. "The Teaching of Physiology to Pharmacy Students," *Jour. A.Ph.A.*, 17:12, 1928.
30. "Report on Ipecac Alkaloids for 1928," *Jour. A.O.A.C.*, 11:3, 1928.
31. "An Improved Animal Cage for Scientific Investigations," (with Geo. S. Bliss), *Jour. Lab. & Clin. Med.*, 14:9, 1929.
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33. "Report of Committee on Research for 1929," *Proc. Am. Assoc. Col. of Phar.*, 1929.
34. "Report of Committee on Establishment of a Pharmacy Corps," *Proc. Am. Assoc. Col. Phar.*, 1929.
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40. "Report of Committee on Establishment of a Pharmacy Corps," *Proc. Am. Assoc. Col. Phar.*, 1930.
41. "Irradiated Ergosterol and Cod Liver Oil," *The Druggist*, Jan., 1931.
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43. "Materia Medica Conference," *Proc. Am. Assoc. Col. Phar.*, 1931.
44. "Viosterol and Cod Liver Oil" (with Nelson and Prather), *Amer. Jour. Dis. Child.*, 42: pp. 52-56, July, 1931.
45. "Annual Report of Committee on Pharmacy Corps," *Proc. Am. Assoc. Col. Phar.*, 1931.
46. "Report of Dr. A. R. Bliss, Jr., to the Tennessee Pharmaceutical Association for 1930-31," *The Druggist*, Aug., 1931.
47. "To Young Men Considering Pharmacy as a Profession," *The Druggist*, Aug., 1931.
48. "Bacteriology and Biologicals," *Proc. Nat. Conf. Phar. Research*, 1931.
49. "A Comparative Study of Three Assay Procedures for Camphorated Tincture of Opium" (with Davy, Blome, Chamberlin, Grantham, and Morrison), *Jour. A.Ph.A.*, 20:9, p. 886, Sept., 1931.
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53. "The Assay of Nux Vomica," *U.S.P. Bulletin* 20, pp. 71-75, Dec., 1931.
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57. "The Term Pharmacology, Its Meaning, and the Scope and Content of a Course in Pharmacology for Pharmacy Students," *Jour. A.Ph.A.*, 21:4, April, 1932.
58. "Report of Local Committee on Reelfoot Lake Biological Station," *Proc. Tenn. Acad. Science*, April, 1932.
59. "Success and Character Traits," *THE MASK*, 29:2, pp. 81-84, April, 1932.
60. "The Assay of Camphorated Tincture of Opium," *U.S.P. Bulletin* 26, pp. 102-105, May, 1932.
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62. "Report of Dr. A. R. Bliss, Jr., to the Tennessee Pharmaceutical Association," *Proc. Tenn. Phar. Assoc.*, 1932.
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67. "Outline of Pharmacology," *Proc. Am. Assoc. Col. Phar.*, 1932.
68. "Outline of Biological Assaying," *Proc. Am. Assoc. Col. Phar.*, 1932.
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72. "An Investigation of the Diuretic Properties of Watermelon Juice" (with Morrison and Prather), *Amer. Jour. Phar.*, Feb., 1933.
73. "A Collaborative Study of an Assay Procedure for Camphorated Tincture of Opium" (with Davy, Blome, Chamberlin, Morrison, and Grantham), *Jour. A.Ph.A.*, 22:4, April, 1933.
74. "A Comparative Study of the U.S.P. X Method and a Modified Method for the Assay of Oleoresin of Aspidium" (with Pabst, Morrison, and Prather), *Jour. A.Ph.A.*, 22:4, April, 1933.
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82. "A Comparative Study of Certain Xanthine Diuretics" (with Morrison), *Jour. Lab. & Clin. Med.*, 19:3, p. 248, Dec., 1933.
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90. "A Comparative Study of the Absorbability of Six Calcium Compounds" (with Morrison), *Jour. A. Ph. A.*, 24:4, April, 1935.
91. "Tooth Paste for Children," *Drug & Cos. Ind.*, 36:4, p. 409, April, 1935.
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99. "Vegetable Drugs of the Bible," *American Profess. Pharmacist*, in three parts: 1:5, p. 9, Aug., 1935; 1:6, p. 23, Sept., 1935; and 1:7, p. 24, Oct., 1935.
100. "Eczema—Dermatitis," *Drug & Cos. Ind.*, 37:5, p. 585, Nov., 1935.

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103. "The Absorption of Drugs from the Human Skin," presented before The XVth International Physiological Congress, Leningrad, Moscow, U.S.S.R., Aug. 9-17, 1935.
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105. "Practical Experience," to be published in the *Amer. Drug*.
106. "Absorption from the Human Skin," to be published in *Drug & Cos. Ind.*
107. "Is Education Enough?" to be published in *Social Science*.
108. "Common Sense," to be published in *The Southern Churchman*.
109. "Absorption of Drugs Applied by Inunction," to be published in the *Jour. Tenn. Acad. Science*.
110. "Psoriasis," to be published in *Drug & Cos. Ind.*

Text and Reference Books

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- II. "Essentials of Physiology" (with Geo. Bachmann), P. Blackiston's Son & Co., Philadelphia, Pa.
- III. "Qualitative Chemical Analysis" (last two revisions with H. H. Schaefer), The Collegiate Press, Menasha, Wis.
- IV. "The Action and Uses of Drugs" (with H. H. Rusby and C. W. Ballard), P. Blackiston's Son & Co., Philadelphia, Pa.
- V. "Experimental Pharmacodynamics," Rawlings Printing Co., Memphis, Tenn.
- VI. "The Chemical Formulary, Vol. II," member Board of Editors, D. Van Nostrand Co., Inc., New York.
- VII. "The Chemical Formulary, III," member Board of Editors, D. Van Nostrand Co., Inc., New York.

Biographies

- (i) *The Pharmaceutical Era*, 66:8, Aug., 1929.
- (ii) *Southeastern Drug Journal*, 4:2, Dec., 1929.
- (iii) *The Druggist*, 12:10, April, 1930.
- (iv) *American Men of Science*.
- (v) *Who's Who in American Medicine*.
- (vi) *Who's Who Among North American Authors*.
- (vii) *Greek Leaders* (Fraternity).
- (viii) *Leaders in Education*.
- (ix) *Who's Who in American Education*.
- (x) *The National Cyclopedia of American Biography*.