

PROCEEDINGS OF THE LOCAL BRANCHES

"All papers presented to the Association and Branches shall become the property of the Association with the understanding that they are not to be published in any other publication prior to their publication in those of the Association, except with the consent of the Council." —Part of Chapter VI, Article VI of the By-Laws.

ARTICLE III of Chapter VII reads: "The objects and aims of local branches of this Association shall be the same as set forth in ARTICLE I of the Constitution of this body, *and the acts of local branches shall in no way commil or bind this Association, and can only serve as recommendations to it.* And no local branch shall enact any article of Constitution or By-Law to conflict with the Constitution or By-Laws of this Association."

ARTICLE IV of Chapter VII reads: "Each local branch having not less than 50 dues-paid members of the Association, holding not less than six meetings annually with an attendance of not less than 9 members at each meeting, and the proceedings of which shall have been submitted to the JOURNAL for publication, may elect one representative to the House of Delegates."

Reports of the meeting of the Local Branches shall be mailed to the Editor on the day following the meeting, if possible. Minutes should be typewritten with wide spaces between the lines. Care should be taken to give proper names correctly and manuscript should be signed by the reporter. *Please advise us of changes in Roster and mail reports promptly.*

BALTIMORE.

The February meeting of the Baltimore Branch, A. Ph. A., was held on the 16th, at the School of Pharmacy of the University of Maryland: President A. N. Hewing presiding.

Decidedly adverse weather conditions prevailing on this date operated to reduce attendance of members to a fraction of the number usually present at these meetings. The previously scheduled address for the evening was canceled, and a substitute program provided. However, those hardy members who braved the first really heavy snow storm which had visited this locality during the winter to attend were well repaid for the inconvenience and effort involved.

An interesting address and discussion on "Aromatic Vehicles and Their Uses in Prescription Compounding" was given by Prof. Marvin J. Andrews, of the School of Pharmacy.

Various new and old vehicles, with compounded mixtures and solutions containing these, were effectively displayed. The materials displayed were used by Professor Andrews to illustrate points made in his address; which might well have been termed a post-graduate lecture on the proper use of aromatic vehicles in the preparation of medicines. One interesting item included in this address for the benefit of retail pharmacists was the demonstration of a simplified method suggested for use in calculating the quantities of high and low alcoholic content Iso-elixir required in filling prescriptions calling for mixtures containing tinctures and fluidextracts of varying alcoholic strengths.

During the discussion which followed his address the speaker exhibited a copy of bound reprints of the series of articles by outstanding physicians on the treatment of various ailments with U. S. P. and N. F. products which have been quoted as references in several late releases of suggested prescription forms sent out to physicians by the Maryland U. S. P. and N. F. Publicity Committee. The articles referred to have been published in the *Journal of the A. M. A.*, under the joint sponsorship of officers of the American Medical Association and the Revision Committee of the U. S. P. In addition to constituting a desirable and welcome contribution to current medical literature, such articles by prominent physicians are providing an ethical background for the activities of numerous state and local committees organized to popularize the use of official drugs and preparations by practicing physicians.

Professor Andrews stated that while it was not the province of pharmaceutical organizations to offer information regarding the therapeutic uses of drugs to physicians, a real service might be rendered in providing suitable vehicles for their administration, and in suggesting methods of compounding which will insure both palatable and therapeutically effective medication.

Apparently, not a great number of pharmacists has as yet come to realize the full significance and value of the successful efforts of the Pharmacopoeial Revision Committee in obtaining the approval and aid of such prominent medical authorities in the publicity campaign inaugurated by the committee last year. This campaign is designed to familiarize physicians

with official drugs and preparations, and to publicize to the medical practitioner the therapeutic advantages inherent in these standardized products. The whole-hearted support of the Editor and publication committee of the *Journal of the American Medical Association* in publishing and featuring these authoritative articles on the therapeutic uses of official drug products certainly deserves the commendation and moral support of all pharmacists. Professor Andrews stated that the Maryland U. S. P. and N. F. Publicity Committee, of which he is Chairman, has been making extensive use of the material published in the *A. M. A. Journal*. It would of course be impossible to evaluate results to date of this new form of publicity, but he regards these contributions and efforts as of prime importance to both medicine and pharmacy.

ROBERT S. FUGUA, *Secretary*.

CHICAGO.

The monthly meeting of the Chicago Branch was held February 16th, at the University of Illinois College of Medicine.

About eighty-five members and friends were present to hear the lecture delivered by Dr. Ralston, connected with the Department of Experimental Medicine, Parke, Davis & Company.

Dr. Ralston chose as his subject "Fifty Years of Scientific Pharmacy."

The story of the advances made in scientific pharmacy was told by Dr. Ralston by beginning with the corner drug store of 1850-1866.

At about this time a few retail druggists began to think of the opportunities present in supplying druggists with pharmaceutical preparations and of marketing new medicaments. These men started the forerunners of the present-day large pharmaceutical manufacturing houses. The competition of the early day manufacturing houses caused a world-wide search for new drugs to put on the market. From this point the discussion was divided into five successive phases of scientific advancement in Pharmacy.

FIRST PHASE: BOTANICAL STANDARDIZATION ERA.

In the year 1879 the first chemically standardized drug, Ergot, was introduced. By 1833 this list had grown to twenty drugs. In the year 1897 Ergot was standardized by physiological methods.

SECOND PHASE: BIOLOGICAL STANDARDIZATION.

In the years 1880-1900 wholesale discoveries were made of disease-producing organisms and serums and antitoxins were prepared for injection to combat these diseases. Many advances were quickly made in the purification of these preparations after cases of tetanus had been reported, after treatment with the diphtheria antitoxin. Other untoward reactions were reported. Experimental therapeutics were used extensively for the first time during this era to evaluate the strength of medicines and biologicals on animals. This was followed with clinical testing on human beings. A review was given of present-day biologicals to show the advances that have been made since the beginning of this era.

THIRD PHASE: ENDOCRINE THERAPY.

While the thyroid gland was known to the ancients it was not until as late as 1891 that disturbances of this gland were associated with myxedema. In 1855 the adrenal gland was discovered and Addison's disease was described. In the period of 1890-1900 the blood pressure principle of the adrenal gland was discovered. About ten years ago the activity of the cortex of the gland was investigated which led to the introduction of the substance known in medicine as "Cortin." In 1909 the effect of the pituitary gland on uterine muscle was noticed. During the period of 1915-1920 two active principles of the pituitary gland were standardized—the oxytocic principle and blood-pressure raising principle. At the present time twelve to thirteen hormones have been identified in the pituitary gland. Corpus luteum, the male and female sex hormones, pregnant urine extract and the hormone of the parathyroid gland have been identified and prepared as medicaments for hormone insufficiency. Insulin might be classed in this group, discovered in 1922 and only recently marketed as a protamine zinc insulin that is said to be superior to insulin.

FOURTH PHASE: ACCESSORY NUTRITIONAL FACTORS.

In the year 1897 the disease known as beri beri was associated with the eating of polished rice. In 1912 the vitamin was discovered and named. In the period of 1912-1937 most of the vitamins have been identified and their sources found. Activity is centered to-day in the synthesizing of the vitamins. Cevatic acid (vitamin C) is now made synthetically. The minerals calcium, phosphorous and iron are known to play an important part in normal body function and are being more thoroughly investigated at the present time. The value of the liver has been discovered and in 1929 desiccated stomach was found to have the same active principle.

FIFTH PHASE: BIOCHEMICAL.

It is the aim of the biochemists to-day to discover the chemical identity of the antigenic factors of the biologicals. Some of the glandular elaborations have been identified chemically. Adrenalin, thyroxin, the male and female sex hormones may be cited as examples.

Attention is called to the close similarity in chemical structure of ergosterol and the female sex hormone.

Dr. Ralston concluded by stating that pharmacy is indispensable to the health of society and that we as pharmacists, must keep abreast of the progress that is being made.

LAWRENCE TEMPLETON, *Secretary*.

NEW YORK.

The February meeting of the New York Branch of the AMERICAN PHARMACEUTICAL ASSOCIATION met February 8, 1937, in the Columbia University College of Pharmacy.

About seventy members and guests were present.

The minutes of the January meeting were read and approved. The treasurer's balance showed \$417.94 on hand.

Mr. Hauck reported the applications of Samuel Ushkow and W. Lee Kirschner for membership in the parent association.

Chairman Lehman, of the Committee of Education and Legislation, reported as follows:

"The decision of the New York State Court of Appeals on the Feld-Crawford Law, is being anxiously awaited, and may be reported any day.

"In Congress there has been introduced, the so-called Miller-Tydings Bill, or National Fair Trade Enabling Act, which establishes a Federal Fair Trade Law in such states as have already adopted a state Fair Trade Law. Such a measure takes away the necessity of registration of foreign firms in such states in which a law of that character is in force at present. Hearings were held on this bill before the Judiciary Committee of the House on Friday, January 29th. Speakers of all branches of retail trade were heard in favor of the measure. Those opposed included R. H. Macy & Co., National Dry Goods Association, Namm Department Stores and the National Grange.

"You are urged to write to the New York State members of the Judiciary Committee and the Rules Committee of the House of Representatives. We have no members in the Senate Judiciary Committee from New York.

"The Bill numbers are S. 100 and H. R. 1611. The New York representatives on the Judiciary Committee are Emanuel Celler, Clarence E. Hancock and William T. Byrne. On the Rules Committee is John O'Connor, Chairman, well known for his sympathy in fair-trade matters. You are urged to write or telegraph in favor of the enactment of the law and ask for a favorable report on the part of the Committees.

"The N. A. R. D. is submitting a Model State Robinson-Patman Bill, or Anti Price Discrimination Act as well as a Model Fair Trade Law, for enactment in such states where there has been no legislation as yet.

"The N. A. R. D. is supporting the Colmer Bill H. R. 4214 which will place a Federal Excise Tax on Interstate Sales at Retail; it is aimed against Mail-order Houses. It is understood that Senator Harrison of Mississippi is introducing a companion bill in the Senate.

"The Mississippi State Board of Pharmacy has issued (Nov. 20th) a *Bulletin* favoring the pharmacist manufacturing his own Galenicals. The document shows the difference in cost of their own product against that which is purchased, and in many cases the saving is considerable."

Dr. H. V. Arny moved that a committee be appointed to draw up suitable resolutions on the death of Dr. George C. Diekman, one of the founders of the Branch, and long active in its affairs. The motion was seconded and carried and Dr. Arny was named as Chairman of the Committee.

Dr. Schaefer announced that arrangements for the annual convention of the A. Ph. A., to be held in New York this summer, were progressing smoothly.

The joint meeting of the Boards of Pharmacy and the Faculties of Pharmacy of District No. 2 will be held in New York on March 8th and 9th. This offers a conflict with the regular Branch meeting, so the latter has been postponed one week and will be held on Monday evening, March 15, 1937.

There being no further business, President Schaefer introduced Dr. J. Leon Lascoff who addressed the members on "The Recipe Book II and Its Value to the Pharmacist."

At the conclusion of the talk there was considerable discussion. Questions were asked by Messrs. Ligorio, Wimmer, Mason, Seley, Fischelis and others.

A rising vote of thanks was accorded the speaker and the meeting adjourned.

HORACE T. F. GIVENS, *Secretary*.

THE RECIPE BOOK NO. II AND ITS VALUE TO THE PHARMACIST.

The AMERICAN PHARMACEUTICAL ASSOCIATION has ever been alive to the desirability of collecting and making accessible to retail pharmacists the formulas of preparations not included in any other official publication.

As early as 1856 a committee was appointed by the president to collect unofficial formulas and report them to the ASSOCIATION. The efforts of that committee and other committees continuing its work led eventually to the issuance of the present-day National Formulary. The enactment of the Food and Drugs Act made the National Formulary as well as the United States Pharmacopœia official standard publications, and this fact made the publication of a book containing the formulas for remedies not included in the two official books a pressing necessity. Prof. Henry P. Hynson, of Baltimore, had the foresight to urge upon the AMERICAN PHARMACEUTICAL ASSOCIATION the publication of such a book. In 1909, he suggested the publication of "a general druggist recipe book." Professor Hynson's suggestion, together with letters from Leo Eliel and Otto Raubenheimer, on the same subject, were referred to the Committee on Standards for Non-Official Drugs and Chemical Products for consideration and report at the Los Angeles meeting of the ASSOCIATION. In addition the Council recommended that the Committee named devote its early attention to the compilation of a list of useful recipes for druggists' use.

At the Richmond meeting in 1910, it was suggested that the matter of publishing a Recipe Book be placed in the hands of a "Committee on A. Ph. A. Recipe Book." This suggestion was brought officially before the Council in the form of a motion made by Franklin M. Apple. According to that motion, seconded by Leonard M. Seltzer, a committee was to be appointed for the purpose of investigating the advisability of publishing a druggist's recipe book by the ASSOCIATION: to define its scope and character, and submit plans and details for the consideration of the Council and the ASSOCIATION. At the end of the first year the Committee had collected about 120 formulas.

In 1915 the original committee of five was enlarged to fifteen members. From 1910 to 1916 approximately 625 formulas had been collected by the committee.

In May 1920, in Washington, a new committee was appointed, with J. Leon Lascoff as its chairman. The new committee on the Recipe Book was enlarged to 25 members. This group was sub-divided into several working committees, each with its respective chairman. In this way each man came in direct contact with the work which interested him.

In September 1923, at the Buffalo meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION, the Chairman turned over a collection of formulas to the ASSOCIATION, and also an exhibit of a large number of preparations with which the members of the committee and the Chairman had experimented. This collection of formulas, as yet, unedited, represented a total of more than fifteen hundred. At the same meeting, Professor Ivor Griffith was elected editor and was requested to assemble and arrange the formulas for publication.

A careful study of these recipes showed the need for reconsideration of their suitability for inclusion in the book, whereupon a Committee on Scope was appointed. This committee deleted some formulas which had outlived their usefulness and supplied others which were more modern to fill the gaps.

During this interval also many other up-to-date formulas were introduced and the completed manuscript was turned over by the Editor to the Council of Association at the Philadelphia convention, September 1926. It was favorably received by the Council and the Committee on Publication was authorized to secure bids on its publication.

The first edition of the Pharmaceutical Recipe Book was brought to conclusion with 777 Pharmaceutical Formulas, 373 Hospital Formulas, 34 Dental Formulas, 66 Diagnostic Reagents and Clinical Tests, 28 Veterinary Formulas, 45 Photographic Formulas, 184 Cosmetic Formulas, 45 Flavoring Formulas, 69 Technical Formulas—a total of 1621 formulas.

At a meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION in Miami, Florida, Chairman J. Leon Lascoff, presented a comprehensive report of the sales of the Recipe Book and also quite a number of new formulas for the succeeding edition of the Recipe Book. A system of revision was prepared at the Miami meeting, and the ASSOCIATION By-Laws were amended by an addition to Chapter VIII which *placed the Recipe Book on the same basis as the National Formulary*. The matter of another edition of the Recipe Book was discussed and it was deemed advisable to prepare a revised edition.

The work of revision, preparatory to the issuance of Recipe Book II, was begun in 1932.

Early in 1933, *Bulletins* containing formulas for the new Recipe Book were sent out for criticism and review. An extensive display of preparations prepared according to the Recipe Book was exhibited at the Madison meeting.

The favorable reception of the Recipe Book was evidenced when in May of 1934 Chairman Lascoff reported that practically all of the copies of the Recipe Book I had been sold and that it was necessary to proceed with the issuing of the second printing. The Council letter of July 19th, announced that the contract for printing and binding the Recipe Book II had been awarded to the Mack Printing Co., Easton, Pa.

The Recipe Book represents the outcome of an effort of the AMERICAN PHARMACEUTICAL ASSOCIATION to place in the hands of the practicing pharmacist a reliable and comprehensive book of recipes applicable to his business. "It is hoped this book will eventually assume the same serviceable and dignified position that the National Formulary has attained in its particular field." The foregoing introductory from the preface of the First Edition of the Recipe Book expressed a hope which has been given assurance by the favorable reception accorded it.

The preparation of a second edition of the Recipe Book was necessitated by the demand for it after the first edition had been exhausted. A revision was prompted by the appearance of the U. S. Pharmacopœia XI and the National Formulary VI, deletions from which were to be included, and a continued desire on the part of the ASSOCIATION to extend the usefulness of the Recipe Book, and suggestions made by physicians, pharmacists, dentists, chiroprudists, veterinarians and others for the revision of and inclusion of additional formulas, tables and other data has resulted in an all extensive revision.

The purpose of the Recipe Book is to supply definite formulas for those preparations which are not included in the official books, but which are in fairly common demand in the retail pharmacy, in the hospital pharmacy and in the manufacture of products relative to which druggists are called upon for advice or supply.

An index of more than fifty pages records the number of formulas in Recipe Book II. The work assigned to the sub-committees was divided in part as follows:

- No. 1. Decoctions, Infusions, Elixirs, Emulsions, Glycerites, Juices, Mixtures, Vinegars and Waters.
- No. 2. Extracts, Fluidextracts, Oleoresins, Resins and Tinctures.
- No. 3. Ointments, Pills, Plasters, Suppositories and Effervescent Salts.
- No. 4. Ampuls, Lozenges, Tablets, etc.
- No. 5. Toilet Preparations, Smelling Salts, etc.
- No. 6. Cosmetics, Creams, Manicure Preparations, Preparations for the Hair, etc.
- No. 7. Cleaning Fluids, Disinfectants, Insecticides, Soaps, Utility Preparations, etc.
- No. 8. Veterinary Preparations,

- No. 9. Household Remedies.
- No. 10. Photographic Formulas.
- No. 11. Agricultural Formulas.
- No. 12. Industrial Formulas.

The admission of all formulas was dependent on a vote of two-thirds of the members of the Committee. All the formulas have been tried out and include only preparations that can be compounded by the pharmacist. The titles of preparations have been studied so that each shall represent, as far as possible, the leading ingredients in the formula and therapeutically suggestive titles shall be eliminated. However, the titles from the Recipe Book I have been included in the index. The Recipe Book has received mention in the Standard Year Book issued by the U. S. Department of Commerce. The Recipe Book does not aim to supply imitations for proprietary or trade-marked articles, and permission has been as far as possible received for re-printing institutional formularies.

The arrangement of formulas, as far as possible, is in alphabetical sequence, the English title being accepted as the primary title, the Latin title as a synonym. Other synonyms are added whenever useful. The metric system is generally used but English units are employed where these have become established through practice.

In all formulas, the ingredients that are official in U. S. P. XI or N. F. VI, are to be of the official strength, quality and purity.

Galenicals listed as ingredients, the formulas for which are not included in the official books, are specified as "R. B." and formulas for them are to be found in this edition of the Recipe Book.

Chairman Lascoff closed his remarks with the following:

"It is my earnest belief and my fond wish that the Recipe Book will find its way to the book shelf of every practical pharmacist in the United States. This I know—that every day I receive so many calls from pharmacists for information which is available in this book, that I would consider no pharmacy as being complete without a copy."

NORTHERN NEW JERSEY.

The Northern New Jersey Branch of the AMERICAN PHARMACEUTICAL ASSOCIATION met at Rutgers College of Pharmacy, February fifteenth. This meeting was a symposium on the four phases of pharmaceutical service.

Miss Marie Jannitti outlined and discussed the duties of the pharmacist toward the diabetic patient: Having available reliable food charts to enable the patient to select variety in the diet and still keep within his limitation; providing the proper reagents and necessary information to assist the patient in performing the urine-sugar tests; providing the necessary hypodermic supplies and instructing the patient in their aseptic use; giving information concerning the emergency treatment for insulin overdosage; and cautioning the patient concerning the dangers that may arise as the result of changing from insulin to the new protamine zinc insulin without first consulting the physician.

Arthur Schneider spoke of the services rendered to and through the nursing profession. The two branches of the nursing profession with the greatest potentialities being the visiting nurse and the industrial nurse. Each of these control, directly or indirectly, a large market for the prescription department and for the sick-room and hospital supplies department.

Discussion of the "baby department" was led by Raphael Nacca. Formulas for antiseptic oils, scalp oils, dusting powders, etc., were given. The proper display of the various prepared baby foods for artificial feeding and the prepared vegetables and vegetable juices was stressed as well as the proper bath and clinical thermometers.

Robert W. Rodman discussed the appropriateness of the amateur photography supplies department. Appropriate because there is no phase of this work that is not related either directly or indirectly to the training of the pharmacist. The developing, fixing, reducing and intensifying chemicals are, with few exceptions, the same chemicals that are found in the prescription case. The pharmacist's training in accuracy makes him the logical person for the amateur to turn for assistance in the chemical processes needed to bring out the desired results. As Mr. Rodman is himself an ardent fan in this hobby, he could well speak of the needs and desires of the amateur photographer.

CYRUS L. COX, *Secretary.*

NORTHWESTERN.

A meeting of the Northwestern Branch, AMERICAN PHARMACEUTICAL ASSOCIATION, was held on Monday, February 15th, in the auditorium of the College of Pharmacy at the University of Minnesota. B. R. Mull, the guest speaker, addressed the gathering upon the subject, "Professional Pharmacy." The talk was followed by a short business meeting presided over by Secretary Netz. The resignation of Mr. R. Almin as Chairman of the Section was presented and accepted. Nominations for Chairman of the Section were called for. Professor E. B. Fischer was nominated. A motion that nominations be closed and that a unanimous vote be cast for Mr. Fischer as Chairman was then made, duly seconded and carried. Professor Fischer was declared elected to the chairmanship by Secretary Netz.

REQUEST FROM SYLLABUS COMMITTEE.

It was decided at the Dallas meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION to revise the Pharmaceutical Syllabus, because of recent changes occurring in pharmaceutical lines. The Committee would appreciate from interested individuals comments on the revision work along any of the following lines: (1) Changes in the required and optional subjects both Professional and Basic and time allotted to same (see Syllabus, pp. 16-17); (2) Changes in title and content of the outlines offered in the Syllabus; (3) Deletion of any outlines; (4) New outlines which should be included; (5) Enlargements of the Section on State Board Examinations.

It is only through discussion and exchanges of ideas from those interested in pharmaceutical education can this work be of the greatest benefit to all concerned and devoid of much criticism. Any suggestions will be much appreciated and will receive due consideration.

HENRY M. BURLAGE, *Acting Chairman.*

CALCULATION OF ISOTONIC SOLUTIONS.

BY H. BÖHME.*

The osmotic pressure of dissolved salts cannot be calculated accurately from the molecular weight, even on the assumption that they are completely ionized, and the following table is given to assist calculation. This shows the concentration of dissolved salt required to produce a definite lowering of the freezing point of the solution.

Dissolved Salt.	Depression of Freezing Point.							
	0-16	0-34	0-51	0-68	0-85	1-03	1-21	1-38
NaCl	0-16	0-34	0-51	0-68	0-85	1-03	1-21	1-38
KCl	0-21	0-43	0-65	0-87	1-09	1-32	1-54	1-77
NaNO ₃	0-24	0-49	0-75	1-00	1-25	1-51	1-78	2-05
KNO ₃	0-28	0-59	0-91	1-24	1-56	1-90	2-34	2-60
Na ₂ SO ₄ , 10H ₂ O	0-61	1-38	2-13	2-90	3-72	4-51	5-35	6-30
NaI	0-45	0-90	1-34	1-79	2-23	2-68	3-12	3-58
KI	0-46	0-94	1-45	1-96	2-45	2-94	3-44	3-96
AgNO ₃	0-48	0-98	1-51	2-05	2-60	3-17	3-74	4-31
ZnSO ₄ , 7H ₂ O	1-17	2-50	3-85	5-29	6-88	8-48
Na ₂ B ₂ O ₇ , 10H ₂ O	0-36	0-74	1-27	1-84	2-47
NaHCO ₃	0-21	0-46	0-71	0-96	1-20	1-45	1-69	1-94
Na ₂ HPO ₄ , 12H ₂ O	0-76	1-51	2-34	3-18	4-01

The depression of a solution isotonic with blood is 0-56° C.; of one isotonic with tears 0-80° C. For alkaloidal salts and similar compounds in solutions not stronger than 0-1 M, complete dissociation may be assumed without making any error greater than 5 per cent. The depression due to the dissolved compound is then calculated from the formula $1.86 \times \frac{g}{M} \times \frac{1000}{L}$ where g. is the weight of dissolved substance, M its molecular weight, and L the weight of solution. The amount of sodium chloride or other substance to be added to make the solution isotonic is then the amount which in solution will give a lowering of the freezing point equal to the difference between the freezing point desired and that produced by the addition of the first compound.—G. M. From *Quarterly Journal of Pharmacy*, July-Sept., 1936.

* *Arch. Pharm. Berl.*, 274, 255 (1936).