

manufacturers, wholesalers and jobbers would use only English names or Latin titles on their packages, pharmacists might forget synonyms and devote more time to raising the standards of the profession.

## COMMITTEE REPORTS

### REPORT OF THE COMMITTEE ON PHARMACEUTICAL SYLLABUS.

Philadelphia, Pa., September 13, 1926.

*To the American Pharmaceutical Association:*

The Pharmaceutical Syllabus Committee respectfully submits the following report:

As has been described in previous reports, the adoption of a minimum three-year course in pharmacy makes it necessary to issue a fourth edition of the "Syllabus," but this could not be undertaken until other conditions affecting its preparation are fulfilled. Of these, the new editions of the "United States Pharmacopœia" and of the "National Formulary" have appeared; it is expected that the report of the Commonwealth Foundation on its investigation of the practice of pharmacy from a functional standpoint will be issued very soon, and the increased annual contributions from the three parent associations will enable the Committee to pay the balance of the cost for printing the third edition of the Syllabus by the end of this year. It is, therefore, expected that the Committee will be able to begin active work on the preparation of the fourth edition of the Syllabus during the coming year, and the progress of the work will be recorded in its bulletins which are published in the JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

For purposes of record, the present membership of the Committee is given here:

#### FROM AMERICAN PHARMACEUTICAL ASSOCIATION.

Terms  
expire.

1926	E. L. Newcomb, 719 Sixth Avenue, S. E., Minneapolis, Minn.
1927	E. G. Eberle, 10 West Chase St., Baltimore, Md.
1928	E. F. Kelly, Lombard & Green Streets, Baltimore, Md.
1929	G. M. Beringer, 501 Federal Street, Camden, N. J.
1930	H. H. Rusby, 115 West 68th Street, New York, N. Y.
1931	W. G. Gregory, 185 Parkside Avenue, Buffalo, N. Y.
1932	W. H. Rudder, Salem, Indiana.

#### FROM AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY.

1926	E. F. Cook, 145 North Tenth Street, Philadelphia, Pa.
1927	D. B. R. Johnson, 1006 Classen Blvd., Norman, Okla.
1928	J. A. Koch, Bluff & Pride Streets, Pittsburgh, Pa.
1929	T. J. Bradley, 179 Longwood Avenue, Boston, Mass.
1930	F. J. Wulling, University of Minnesota, Minneapolis, Minn.
1931	J. G. Beard, Chapel Hill, North Carolina.
1932	E. V. Lynn, University of Washington, Seattle, Wash.

#### FROM NATIONAL ASSOCIATION OF BOARDS OF PHARMACY.

1926	G. C. Diekman, 115 West 68th Street, New York, N. Y.
1927	S. A. Williams, Troy, Alabama.
1928	John Culley, 2479 Washington Avenue, Ogden, Utah.
1929	Mathias Noll, 605 Atchison Street, Atchison, Kansas.
1930	W. D. Jones, 1 East Bay Street, Jacksonville, Fla.
1931	Frank Schachleiter, <sup>1</sup> P. O. Box 1133, Little Rock, Ark.
1932	R. L. Swain, Sykesville, Md.

(Signed) THEODORE J. BRADLEY,  
Chairman, for the Committee.

<sup>1</sup> Deceased.

## THE SECTIONS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

ABSTRACT OF THE MINUTES OF THE SESSIONS HELD IN PHILADELPHIA, PA.,  
SEPTEMBER 14-17, 1926.

(See also summary report at the final session of the House of Delegates,  
printed in November JOURNAL.)

## SCIENTIFIC SECTION.

The first session of the Scientific Section, AMERICAN PHARMACEUTICAL ASSOCIATION, was convened at 9:40 A.M., September 14th, by Chairman F. F. Berg. Secretary Paul S. Pittenger, presided during the reading of the Chairman's address.

## THE CHAIRMAN'S ADDRESS.

BY F. F. BERG.

Mindful that Philadelphia is the birthplace of the AMERICAN PHARMACEUTICAL ASSOCIATION and of many valuable and important contributions to American Pharmacy which have had their inception in Philadelphia, it is a distinct honor to be accorded the privilege of extending a welcome to the sessions of the Scientific Section this year.

Pharmaceutical research, embracing as it does many branches of endeavor, occupies a unique position in the field of scientific effort; and by this same token offers at these sessions unusual opportunities for meeting and exchanging ideas and discussing progress on problems in such branches of scientific endeavor as pharmacognosy, chemistry in all its highly specialized branches, biology, pharmacology, bacteriology.

While it is quite true that every profession or calling is prone to magnify its own importance or value, the record established in the past few years for quantity and quality of papers contributed through the Scientific Section permits one to feel justified in emphasizing the quality and scope of pharmaceutical research and reflected through the Scientific Section.

It is pleasing to note that members have responded in a most generous manner this year, and as a result of their efforts we have received ten papers on the subject of Pharmacology, six on Biologic Assays, six on Plant Chemistry, thirteen on Analytical Chemistry, five on Organic Chemistry, two on Biological Chemistry, two on Colloidal Chemistry, six on Pharmaceutical Chemistry, five on Pharmacognosy.

Pharmaceutical research as contributed through the ASSOCIATION finds its way to a permanent record on the pages of the excellent JOURNAL OF AMERICAN PHARMACEUTICAL ASSOCIATION, but as we come to this meeting this year we have witnessed the completion of other milestones marking definite pharmaceutical progress.

As a result of nearly six years of unselfish endeavor and painstaking effort on the part of pharmaceutical and medical workers, we may point with pride to the revision and publication of Tenth Edition of the U. S. Pharmacopœia and Fifth Edition of the National Formulary and in reflecting on the authoritative character of these works, feel justly proud that in no small measure they both represent work by contributors to this section.

Pharmacopœial revision represents a vast amount of experimentation and observation of formula and methods, involving in many instances long periods of time for stability observation, and in view of the value of such early pioneer work for future revision, the Committee on Revision has solicited information from those interested in problems which may aid future revision programs. Your Chairman draws your attention to this field of activity as worthy of attention by those seeking problems of interest.

With the revision of By-Laws at the Buffalo meeting, together with the valuable amendment at last year's meeting to increase the Secretary's term of office to three years, the Chairman has no recommendations to offer or changes to suggest in the conduct of the Section's activities.

The YEAR BOOK of the Association as a dictionary of valuable pharmaceutical information has always found ready use by the Chairman and in view of the number of years which elapsed since the publication of an index to the YEAR BOOK, or PROCEEDINGS as the book was called when last index was compiled, it is desired to specifically recommend to the ASSOCIATION

that steps be taken to compile an up-to-date index of those volumes of YEAR BOOK which have appeared since publication of last such index.

It is believed that such an index would be a valuable addition to pharmaceutical literature, and a work highly appreciated by pharmaceutical workers. In connection herewith may the Chairman suggest that a fitting time for publication of such a work might be at time of the seventy-fifth anniversary of the ASSOCIATION in 1927.

In concluding, the Chairman wishes to express his hearty thanks for the splendid work of the Secretary in soliciting papers and preparing the program for the sessions and to the membership grateful appreciation for their response to the Section's appeal for papers; finally, he is hopeful that our sessions will result in an interchange of ideas and bring out discussions of interest and benefit to all.

Temporary Chairman Paul S. Pittenger appointed Messrs. Heber W. Youngken, Charles J. Clayton and L. W. Rowe to serve as members of the Committee on the Chairman's Address.

#### SECRETARY'S REPORT.

Secretary Paul S. Pittenger stated that he had no formal report to present. In arranging for the program of the Philadelphia meeting 410 personal appeals for papers were mailed and also requests were sent to various pharmaceutical journals to publish the appeal, and these met with general response. This first request was followed by another about thirty days thereafter and brought 103 personal letters from members, all of which were replied to and represented a total of 953 pieces of correspondence sent out from the Secretary's office, as a result of which 55 papers were received and make up the program of this meeting.

Secretary Pittenger's report was received with thanks.

Chairman Berg stated that the Ebert Prize Committee would report at the joint session of the Scientific Section with the Section on Practical Pharmacy and Dispensing, and that the report of the Committee on the Quality of Medicinal Products would be presented at a later session.

The Chairman appointed as members of the Committee on Nominations: F. E. Bibbins, W. H. Zeigler and H. Engelhardt.

Secretary Pittenger read a communication from Honorary Member Dr. I. M. Kolthoff of the University of Utrecht, Holland.

#### PAPERS.<sup>1</sup>

The following papers were read and discussed, presented with abstract or read by title: "Influence of Digitalis on the Resistance of Guinea-Pigs to Poisoning by Diphtheria Toxin," by Charles C. Haskell.

"Additional Studies on Miré," by Thomas F. Githens.

"Further Studies of the Anesthetic Properties of Propylene," by Lloyd K. Riggs.

"Permanganate Solution as a Cure for Impetigo," by Edward H. Carus.

In the absence of the author the following papers by Dr. Albert Schneider were read by title: "Respiration Test as a Possible Substitute for the Usual Basal Rate Deteriorations," "Dermographia: Dermographic Tests and Observations," "Some Observations on Digitalis Action," "The Earthworm Method for Testing Santonin and Related Anthelmintics."

A paper on "Non-Saponifiable Fat Soluble Vitamin Concentrate" was presented by H. E. Dubin.

Then followed: "Influence of Various Radiations on the Potency of Digitalis," by David I. Macht and John C. Krantz, Jr.

"An Assay Method for Digitalis Based on the Relationship between the Lethal Dose of the Drug and the Weight of the Heart," by W. R. Bond.

"The Possible Influence of Ether Anesthesia on the Accuracy of the Cat Method of Digitalis Assay," by H. B. Haag.

"The Effect of Certain Defatting Solvents upon the Potency of Ergot," by J. C. Munch and E. W. Schwartze.

"The Analysis of Camphorated Oil," by Charles F. Poe.

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<sup>1</sup> Abstracts of discussions of contributions will be printed with the papers and omitted here unless some action requires prior notation.

"The Glucosides of *Caulophyllum Thalictroides*," by Edward D. Davy and H. P. Chu. The first session of the Scientific Section was then adjourned.

#### SECOND SESSION.

The second session of the Scientific Section was convened at 9:30 A.M., Thursday, September 16th, by Chairman F. F. Berg.

The reading of the minutes of the first session was, on motion duly seconded and carried, dispensed with.

The reading of papers was at once taken up. The first paper of the morning was that by Ernest Little on "The Effect of Gelatin on Titration Curves of Various Acids."

Other papers followed in the order given: "The Colorimetric Assay of *Digitalis*" and "The Colorimetric Assay of *Strophanthus*," by L. W. Rowe.

"Application of Standardized Colored Fluids to Hydrogen-Ion Determinations," by H. V. Arny and Abraham Taub.

"Some Observations on the Quantitative Determination of the Anthroquinone Derivatives in Cathartic Drugs,"<sup>1</sup> by M. C. Tumminkatti and George D. Beal.

"Estimation of Chloroform in Chloroform Liniment," by R. J. Greenwood.

"Effect of Acidity on the Activity of Pepsin in the Solid State,"<sup>2</sup> by A. L. Dinger, and W. E. Honsinger.

"U. S. P. X Nitrate Test on Solution Ferric Chloride," by M. W. Carey and R. E. Schoetzow.

"Diethylphthallate V," by J. A. Handy and L. F. Hoyt.

"Some Applications of Colloidal Chemistry to Pharmacy," Pell Broady and C. B. Jordan. The second session of the Scientific Section was then adjourned.

#### THIRD SESSION.

The third session of the Scientific Section was convened at 9:45 A.M. Friday, September 17th, by Chairman F. F. Berg. On motion duly seconded and carried the reading of the minutes of the preceding session was dispensed with and the reading of papers continued.

"Assay of Cinchophen Tablets," by L. E. Warren.

"The Application of the U. S. P. X Yeast Fermentation Test to Colloidal Silver Compounds," by H. M. Taylor.

"The Effect of Benzoic and Cinnamic Acids on the Rate of Development of Rancidity in Lard," by Wm. J. Husa and Lydia M. Husa.

"A New Type of Preparations of Vegetable Drugs," by Thomas S. Githens.

The following papers were read by title: "The Need of Greater Activity in the Making of Analyses of Medicinal Preparations Found on the Open Market and of a Wider Publicity of the Analyses," by Frederick J. Wulling.

"The Living Belladonna," by F. B. Kilmer.

"Variations in the Constituents of *Grindelia* Grown in Various Sections of the U. S.," C. J. Zufall.

"Hydrogenated Coconut Oil and Coconut Oil Butter as a Substitute for Lard in Iodine Ointments," by E. V. Kyser and J. A. Bullock.

"A Century of the U. S. P. 1820-1920—Aqua Chlorig," by A. A. Horwood and Edward Kremers.

"The Volatile Oils from the Cultivated and Wild Varieties of *Mentha Citrata*," by E. V. Kyser and H. R. Totten.

"The Glucosidal Pigment of *Bixa Orellana* (Annatto)," by Lloyd Harris and Edward Kremers.

"The Fatty Acids of *Bixa Orellana* (Annatto)," by Lloyd Harris and Edward Kremers.

"Assay of Atropine Sulphate Tablets and Granulation,"<sup>3</sup> by W. P. Edwards and R. E. Schoetzow.

<sup>1</sup> See October JOURNAL A. PH. A., p. 847 (1926).

<sup>2</sup> See October JOURNAL A. PH. A., p. 866 (1926).

<sup>3</sup> See November JOUR. A. PH. A., Scientific Section, p. 967 (1926).

"Limonene Dibrom Nitrochloride and Derivatives," by H. A. Braun and Edward Kremers.

"On the Significance of Methyl—3 Butanol—1 in Peppermint," by S. M. Gordon and Edward Kremers.

"The Revision of the Pentansols," by S. M. Gordon and Edward Kremers.

"On the Biochemical Significance of the Occurrence of Vanillyl Alcohol in Ginger," by P. Valenzuela and Edward Kremers.

The next paper read was by J. C. Peacock on "The Simplification of Rabies Vaccine."

"The Interpretation of Biologic Assay," by Paul S. Pittenger.

"Digitalis Lutea vs. Digitalis Purpurea," by R. A. Konnerth and Elizabeth Pickering.

The paper read by title entitled "The Living Belladonna," by F. B. Kilmer, was presented by the author.

Dr. Arno Viehoever explained a "Digitalis Exhibit" prepared by him.

The following papers were read by title: "The Research Laboratories of the A. Ph. A.," by Edward Swallow.

"The Volatile Oil of Hypericum Perforatum L.," by Emerson R. Miller.

#### COMMITTEE REPORTS.

The report of the *Committee on the Address of the Chairman of the Scientific Section* was presented; it follows:

We, the members of the Committee to which was referred the address of the Chairman, report as follows: We commend the Chairman for his good judgment in refraining from any suggestions looking toward changes in the By-Laws, which seem to admirably meet the requirements of the Section at the present time.

We approve the one definite recommendation in his address, namely, that a consolidated index of the subjects included in the YEAR BOOKS of the AMERICAN PHARMACEUTICAL ASSOCIATION published since the last such index was issued be prepared and distributed to the members at as early a date as possible, preferably not later than the seventy-fifth annual meeting, to be held in 1927.

HEBER W. YOUNGKEN, *Chairman*,  
CHAS. J. CLAYTON,  
LEWIS W. ROWE.

On motion and vote the report was adopted.

The *Committee on Nominations* reported as follows: *Chairman*, John C. Krantz, Jr.; *First Vice-Chairman*, L. W. Rowe; *Second Vice-Chairman*, J. C. Munch; *Delegate to the House of Delegates*, F. F. Berg. On motion made and duly seconded the report of the Nominating Committee was accepted and the Chairman of the Committee was directed to cast a ballot for the election of the nominees as officers for the ensuing year.

Charles J. Clayton was appointed marshal and presented the nominees for installation. The officers-elect were duly installed.

#### JOINT SESSION OF SCIENTIFIC SECTION AND SECTION ON PRACTICAL PHARMACY AND DISPENSING.

Acting Chairman Adley B. Nichols presided with Chairman F. F. Berg of the Scientific Section.

The first order of business was the report of the *Committee on Ebert prize*. This was made by Chairman W. L. Scoville who stated that it was always a difficult task to award this prize. There are a great many good papers and it is not an easy matter to select the one to whom the Ebert prize should be awarded. In making the selection the work involved in preparing the paper, the subject, its purport, its significance, what it promises for the future, and even the motive of the writers must be taken into consideration. During the past year a number of most excellent papers have been published in the JOURNAL, theses for the degree of Master or of Doctor. These papers have not been considered for that reason, as the Committee felt that Mr. Ebert in establishing the prize had only in mind voluntary work. The Committee has decided that the prize should go to J. A. Handy and L. F. Hoyt, for their contributions on Diethylphthallate which have been presented during successive years. The Chairman stated that with regard to the double award, provision has been made for the recognition of two workers.

Chairman Berg stated that the formal award of the prize would be made at the final General Session of the ASSOCIATION. He asked that a vote of thanks be given the Committee and it was so moved, seconded and carried.

The Chairman announced as the next order of business a Symposium on the U. S. P. and N. F. and called on Charles H. LaWall of the U. S. P. Revision Committee and also a member of the Revision Committee of the N. F. He stated that the Pharmacopœia had become official on January 1st, that the National Formulary V had signalized a definite forward step in pharmacy and justifies its existence. He had heard little criticism but much praise. However, the members of the Committee welcomed criticism just as much as praise because this enabled them to perfect the Standard. He said that one of the things that confronts every Revision Committee is a question of unfinished problems involving those things which had not been officially put in shape so as to make them available for utilization. These unfinished problems are always met by the Committees and sometimes they have been carried over from one Committee to another. There had been little attempt made in the past to systematically provide for research work. He was pleased to announce that the Board of Trustees of the U. S. P. had acquiesced in the suggestion that a systematic plan of research work be tried on the part of the Committee of Revision; that instead of doing nothing in a systematic way to aid the work of a succeeding edition they had organized themselves into groups who will carry on the work of preparation for the next revision. The Board of Trustees has appropriated a modest sum for the first year's trial of this work. The Executive Committee of the U. S. P. Revision Committee, at a meeting in New York in April, sub-divided the Committees into five general groups and chairmen of these groups were appointed or selected to take charge of certain research, but work is just beginning and the groups are preparing plans for constructive work during the coming year. He expressed the hope that when the 1930 convention came together many of the unsolved problems that met previous Committees would be well in hand. He thought that this was an opportune time to bring this subject before the Scientific Section which contributes so much in a scientific way that is helpful in the revision of the Pharmacopœia. As a sub-committee chairman, he said that the work done by members of the Scientific Section had been exceedingly helpful in the revisions.

Chairman Adley B. Nichols now took charge of the meeting. He called on Chairman W. L. Scoville of the Committee on Revision of the N. F., who presented his report. (This is printed under "Committee Reports" in the November JOURNAL A. PH. A.) The Chairman called for the paper on "The Influence on Medical and Pharmaceutical Practice of Recent Deletions from the U. S. P.," by Dr. H. H. Rusby. (This paper is printed in the Scientific Section of the November JOURNAL. It is hoped to present the discussion thereon in a succeeding number.)

The Scientific Section was then adjourned.

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#### SECTION ON EDUCATION AND LEGISLATION.

The first session of the Section on Education and Legislation, A. PH. A. was convened at 10:00 A. M., Thursday, September 16th, by Chairman John G. Beard. In the absence of Secretary H. M. Faser, A. L. I. Winne acted as temporary Secretary; he presided during the reading of the Chairman's address, it follows:

##### THE ASSISTANT PHARMACIST: A DANGEROUS ANOMALY.

BY JOHN GROVER BEARD.

The subject selected for this address is not only timely and important, but is very appropriate to a section that concerns itself with education and legislation. The subject in question is here styled "The Assistant Pharmacist: A Dangerous Anomaly."

This address will not deal with the assistant sympathetically: it develops from a mind highly prejudiced against such a class of licentiate. It will, however, take no liberties with fact and will in the main stick to incontrovertible data.

The facts cited in the material that follows were taken from questionnaires sent to and received from State Board Secretaries in June of this year. They are, therefore, authentic and apply to the present time.

## HISTORICAL.

In 1870 two States in New England, Maine and Rhode Island, established by law two grades of pharmaceutical license. The lesser grade they designated as "assistant pharmacist," a title that has been adopted by all other States save one (New York) that have created the so-called "assistants." The movement found no imitation until 1882 when a western State, Wisconsin, adopted the plan. From then on there were steady additions to the list of States legalizing assistants. The movement had no geographical significance or unity, but arose here, there and yonder. In 1883 Delaware created the grade, in 1884 Ohio followed; then came in order Kansas, Montana, Michigan and Minnesota in 1885; North Dakota, Pennsylvania, Colorado and Alabama in 1887; South Dakota in 1889; Virginia in 1890; Oregon and California in 1891; Utah in 1892; Tennessee in 1893; Vermont in 1895; New Jersey and Nevada in 1896; Indiana in 1899; Louisiana and Maryland in 1902; Arizona in 1903; Idaho in 1905; New Hampshire in 1906; West Virginia and Texas in 1907; Massachusetts in 1908; Mississippi and Kentucky in 1910; Connecticut in 1911; Missouri in 1912, and finally, after a lapse of several years, the two Carolinas, fell into line. South Carolina adopted the grade in 1919 and North Carolina, the last State to legalize assistants, did so in 1922.

## STATISTICAL.

Thirty-eight States now permit the licensing of assistant pharmacists. There are approximately 20,000 such assistants registered in these States. Four States report that the number of assistants in proportion to senior pharmacists is increasing; fourteen report a decrease; seventeen say the ratio is showing no change, and four States did not report.

The qualifications demanded of assistants are not uniform in the thirty-eight States. The amount of practical experience demanded in twenty-two States is two years; in twelve States it is three years; in one State it is four; in two it is only one year; and in one State, South Dakota, no experience is required. High-school training is compulsory in twenty-two States, the amount being four years in ten States, three years in one State, two years in nine States, and one year in two States. Eighteen States do not exact any high-school work of their assistants. Only four States, Maryland, New Jersey, Ohio and West Virginia, demand college study, and these specify one year only. The age limit in most of the commonwealths allowing assistant registration is eighteen years, this being true in thirty-two cases. However, in one State the limit is twenty-one, in another it is twenty, in three instances it is nineteen, while in Utah no limit is fixed.

In twenty-three States junior applicants are given a different set of examination questions from those submitted to senior candidates, but in fifteen States the same sheets are given to all applicants, the difference being that juniors are expected to answer only sixty per cent of the questions correctly, while seniors are required to be seventy-five per cent perfect in their replies.

In two States there have been recent annulments of the law allowing assistant pharmacists. After January 1, 1927, the grade is abolished in Alabama, and exactly a year later the same thing happens in New York. Iowa did away with assistants in 1920, and Oklahoma and Wyoming did the same thing on dates not known to the writer. In other words, five States up to the present have tried the plan of junior registration and finding it unsatisfactory have dropped it. Board Secretaries report that there is a serious movement to abolish the grade of assistant in Maryland, Mississippi, Ohio, South Dakota, Tennessee, Texas and Virginia.

Forty-two State Board Secretaries answered the following query that was put to them in June of this year:

"After watching the operation of the law allowing assistant pharmacists, do you favor or oppose it?"

Twenty answered in favor of the law; nineteen opposed it; one qualified his answer; one is undecided, and one is indifferent. The reasons given by the Secretaries for their answers will be briefly summarized here. Those favoring the grade will be heard first.

## ARGUMENTS FOR THE GRADE.

Secretaries in Colorado, Maine, Massachusetts, North Dakota and Oregon advance the familiar claim that assistant pharmacists supply legal help for those stores that cannot afford more than one senior pharmacist. The Secretary in Arizona says that possessing assistant's license makes clerks more interested in their work and stimulates them in going to college.

Connecticut's Secretary believes that having assistants "helped to get prerequisite legislation and supplies clerks."

(From this point on, in order to save time, the name of the State is to be understood as meaning the Board Secretary of that particular State.)

Idaho claims that standards have been raised there, and greater opportunity now exists for assistants. Iowa feels that it is unfair to the very young clerk to make him wait until he is twenty-one to take the Board examination. As matters now stand, he may pass as an assistant at eighteen. Louisiana believes that assistants will be necessary as soon as the prerequisite goes into effect there. New Jersey maintains that since its standards have been so raised, the assistant there is sufficiently trained to be competent help.

West Virginia bases its favor on the ground that the junior grade of license allows college students to obtain better positions. Incidentally an assistant pharmacist may operate a drug store in West Virginia if the store is located in a village of less than 500 people. Wisconsin writes that the grade "works out best as a training for pharmacists." Kentucky says: "It meets a certain condition here." Missouri apparently favors because it is a "part of the law." Rhode Island says "It is pleasing to all." The following give no reason for their championship of the assistant pharmacist: Delaware, Illinois, Nevada and Vermont.

It seems fair and logical here to introduce certain paragraphs from a letter which H. C. Christensen recently sent the author, because they constitute the strongest argument that can be advanced for the assistant and because Mr. Christensen has given much thought to the whole matter.

Personally, from my wide experience and observation and a sincere study of the whole subject, I am very strongly of the opinion that it would be a serious mistake to do away with assistant registration. The duties which may be performed by an assistant should be regulated and restricted, but it seems to me that it would be much better to try to develop an assistant who would be fit and competent to give service along certain lines that would be legalized by law, instead of necessitating the employment of all unlegalized help.

We should always be looking into the future, and when the time comes, as it will, when the requirements for entrance to examination for registered pharmacists will be at least graduation from a four-year course in a college of pharmacy, it is self-evident that a pharmacist in a small community, or even in outlying districts of centers, being a pharmacist himself, will, in a majority of instances not need additional help of the same high, technical type as the full registered pharmacist, but *will need help* that should know something about pharmacy and be *legalized* under State laws.

What should constitute the education and qualifications of an assistant is one of the problems to be worked out. Personally, I have quite fixed opinions as to what these qualifications should be to fit in with conditions such as I see for future pharmacy. The trouble has been in the past that there was really no necessity for assistants so long as a State was not on a straight college of pharmacy graduation basis for full registration and has been on such a basis for a number of years. Because of such a condition existing only in a few States at the present time, the individual who only looks at the present cannot, of course, see the necessity for an assistant pharmacist.

Too many States and individuals look at the assistant only as an apprentice. Each type, the apprentice, the assistant and the full registered pharmacist should be counted in a class by himself, and educated and fitted for the particular duties which each is expected to perform.

It seems pertinent at this point to remark that not a single one of the Secretaries just quoted, nor Mr. Christensen himself, says a word in regard to the interests and welfare of the public in this matter. They appear to forget that all legal standards of practice are formulated primarily to protect the public and only incidentally for the benefit of the practitioners involved. And now for the arguments of those opposing the grade of assistant pharmacist.



## ARGUMENTS AGAINST IT.

California reports that the law allowing assistant pharmacists is "not satisfactory in practice." Georgia, Maryland, Oklahoma, South Dakota and Minnesota contend that the assistant is not needed. Montana and New Hampshire says that the grade "amounts to nothing" in their States. Mississippi writes that it is "not practical."

Ohio and New Mexico contend that the assistant often assumes the duties of a registered pharmacist and accordingly makes law enforcement harder. Indiana also feels that the Pharmacy Act is more difficult of enforcement because of the assistant.

Michigan's case deserves especial attention. Director Hoffman supports his objection to junior registrants by this assertion: "Under our regulations, assistants may operate a drug store one-half the time it is open for business. Furthermore, it is hard to convict an assistant, who is a proprietor, of violation of law for not having a registered pharmacist in charge one-half the time the store is open for business." Texas reports the grade as useless because there an apprentice may do anything an assistant is permitted to do.

Secretaries in Alabama, District of Columbia, Florida and Tennessee give no reasons for their opposition. But Secretary Winne of the Virginia Board comments at some length on the subject, and since what he says applies to most of the States having assistant pharmacists, his remarks will, in part, be quoted here:

There are arguments on both sides of the case, but as the situation exists in this State, an assistant pharmacist if he secures his license may do anything that a registered pharmacist may do except be in permanent charge of a store. He may fill prescriptions and compound medicines and may be in temporary charge of a pharmacy during the absence of a registered pharmacist, and to all intents and purposes he does the same work that a registered man does. In order to secure an assistant certificate an applicant must have had two years of high-school preparation and had two years' experience in a drug store. With this equipment he is turned loose to compete with the man who has had four years' high-school training and who is a graduate of a school of pharmacy, now requiring three years more of his time. The ratio of preparation is as four years to seven years, but the ratio of compensation is pretty nearly one to one. Further than this, I do not believe that it is anything to the credit of pharmacy to have two grades of registered men. If we are to have a standard of competency then all persons granted a license should be required to come up to that standard. No other profession or near profession that I know of has any provision for registered assistants. They may use assistants but they do not dignify them by conferring any certificate of recognition upon them. Therefore, personally, I believe it would be a good thing to wipe out the assistant grade for the future and I feel that it is coming sometime, how soon I cannot say.

When all the arguments for and against assistant pharmacists are boiled down to essentials and analyzed, it is found that a desire for cheap help is the force dominating most of those who favor the grade, while those who oppose it appear to do so through belief that allowing an admittedly sub-standard type of dispenser to perform the responsible and dangerous parts of a pharmacist's work is a practice not only unfair to the higher grade men, but—and this is more important—it constitutes a menace to public safety. What we pharmacists all over the country need to do is to stop supposing that legalizing a drug worker makes him one whit safer as a dispenser. If his training is insufficient and his allowable duties are dangerous, he will remain as much a public peril after he is licensed as before. Yea, more, because the license gives him a false self-confidence and inspires in his customers a misplaced confidence in his ability.

At the annual meeting of the National Association of Boards of Pharmacy in 1925 a committee headed by Robert L. Swain, of Maryland, submitted a report dealing with the whole question of assistant pharmacists. Extracts from this report will be inserted here because very few druggists at large have heard of the action that grew out of the report. After explaining how the report was prepared and after giving a history of the junior grade, the report goes on to say "It seems that the idea of inferior preparation and training on the part of persons who under conditions are charged with grave responsibility has been monopolized by pharmacy alone."

The report then outlines in brief manner the qualifications exacted of assistants, such as was done in even fuller manner in this paper, after which the following appears:

The matter of privileges and rights legally conferred upon assistant pharmacists was also made the subject of study by your committee, and it is this special phase of the subject that should receive careful thought on the part of this association, bearing in mind that we are considering a class of registrants admittedly of sub-standard training. In the matter of legal privileges, much diversity is observed. In some States an assistant pharmacist is confined to the actual act of assisting a registered pharmacist, but has no rights or privileges in his absence. This, of course, prevents the assistant from conducting a pharmacy on his own responsibility and restricts him to such duties as can be reasonably associated with his lawful title. In some States, however, the assistant pharmacist is given all the rights and privileges of a fully registered person, with the exception that he cannot be the responsible manager of a store although he can legally conduct it for various intervals ranging from periods of six hours to as many as forty-eight. In one State, I am informed that it is legal for an assistant pharmacist to conduct a store continuously, provided he is relieved by a registered pharmacist for one hour during the day's work; and in this particular State, the only training demanded is two years' practical experience. In some States the Board of Pharmacy has the power to grant assistant pharmacists the right to conduct a pharmacy, as pharmacists, in towns and villages not exceeding two hundred population, and under conditions, can grant to an assistant the right to conduct any pharmacy in the State for a period of time not to exceed sixty days. With an occasional exception, the laws of all States giving recognition to assistant registrants allow the conduct of a pharmacy for undefined periods of time during the temporary absence of a registered pharmacist, and it is the indefinite character of this phraseology that has resulted in certain instances of a condition closely akin to nullification of the pharmacy act.

After giving this matter careful and deliberate study, your committee feels justified in formulating its conclusion under two separate headings:

First: Under no condition should an assistant pharmacist be granted reciprocal registration. While it is true that much good can come from a well-directed effort to secure uniform laws governing the issuance of this inferior certificate and thereby improve the general status of this class of registrant by providing for a higher educational standard, nevertheless, your committee feels that no additional privileges should be conferred so long as the registrant maintains less than a professional standing

Second: Your committee also recommends that steps be taken looking to the ultimate discontinuance of the assistant registration. Primarily, the committee holds this certificate to be archaic and illogical and having no place in our present conception of professional education and procedure. Such a condition, finding no analogy in any other professional group, is simply an impediment to the continued progress of pharmacy to a universally accepted professional place. It is inconceivable that pharmacy should continue to recognize and publicly endorse such a certificate empowering the recipient to legally discharge responsibilities for which he is not fitted, thereby making a travesty of what we conceive to be a serious professional service.

Members of 1924-25  
Committee on Registration  
and Reciprocity for  
Assistants

}	R. L. SWAIN, <i>Chairman</i> , Maryland
	G. V. KRADWELL, Wisconsin
	R. C. ROOT, Vermont
	P. W. MOOMAH, Oklahoma
	N. G. EDELBLUTE, Kansas
W. E. HASTER, Louisiana	

These recommendations were adopted, consequently the N. A. B. P. is officially committed to a position favoring the ultimate discontinuance of assistant pharmacists.

PART-TIME PROFESSIONAL SERVICE.

In concluding this address, your chairman holds it to be a self-evident fact that if it is wise for registered pharmacists to be held up to certain rigid qualifications in order to be eligible to fill prescriptions and dispense poisons, that it follows as a matter of elementary reasoning that only persons of their degree of competence should be allowed to discharge such duties. The force of this reasoning is not lost or altered by the fact that in most States these duties can only be performed by the assistant under the same roof with the superior or during his temporary absence.

If prescription filling and poison selling are sufficiently important and so fraught with danger as by law to invoke the services of a registered pharmacist, the very purpose of the protection is destroyed when persons less well trained and competent are permitted to act as substitutes. An assistant with inferior knowledge and skill is only a little less likely to make deadly errors because his superior is present, and certainly he may wreak havoc during the "temporary absence" of the pharmacist, particularly since in most States the "temporary absence" is impossible to control, even when it is strictly defined. If an assistant pharmacist is competent to fill prescriptions and sell poisons *part* of the time, he is competent *all* of the time; and if he is a safe purveyor of drugs and medicines, then it is absurd to exact higher qualifications of any other sort of pharmacist, because these are the only duties in a drug store that call for legally controlled competency.

DATA CONCERNING ASSISTANT PHARMACISTS IN THE VARIOUS STATES SUPPLIED IN JUNE 1926 BY BOARD SECRETARIES.

	Grade became effective.	Qualifications				Is examn. same as for reg. phar.?	No. asst. phar. in State.	No. reg. phar. in State.	Is ratio increasing, decreasing, or staying same?	Does secty. favor or oppose ast. pharmacists?
		Store exper. years.	High school, years.	train- ing, years.	College Age.					
Alabama	1887	2	2	0	18	Different	506	2,935	Decreasing	Oppose
Arizona	1903	2	0	0	18	Same, 50%	24	171	Same	Favor
Arkansas										
California	1891	3	0	0	18	Same, 65%	800	7,500	Same	Oppose
Colorado	1887	3	0	0	18	Different	86	1,403	Decreasing	Favor
Connecticut	1911	3	0	0	18	Different	465	1,550	Same	Favor
Delaware	1883	2	1	0	18	Same, 50%	43	267	Same	Favor
Dist. Col.										Oppose
Florida										Oppose
Georgia										Oppose
Idaho	1905	3	2	0	18	Different	2	659	Same	Favor
Illinois		3	0	0	18	Different	785	7,060	Same	Favor
Indiana	1899	1	4	0	18	Different	400	3,700	Same	Oppose
Iowa										?
Kansas	1885	2	4	0	21	Different	74	2,178	Decreasing	?
Kentucky	1910	2	2	0	18	Different	185	1,725	Same	Favor
Louisiana	1902	2	1	0	18	Same, 60%	600	1,812	Decreasing	Favor
Maine	1870	2	2	0	18	Same, 50%	84	1,504	Decreasing	Favor
Maryland	1902	2	2	1	18	Different	?	?	Decreasing	Oppose
Massachusetts	1908	3	0	0	19	Different	2,300*	7,450*	Decreasing	Favor
Michigan	1885	2	3	0	18	Different	3,585*	4,700*	Increasing	Oppose
Minnesota	1885	2	0	0	18	Different	350	2,000	Same	Oppose
Mississippi	1910	2	0	0	19	Same, 65%	?	?	Decreasing	Oppose
Missouri	1912	2	4	0	18	Different	600*	5,540*	Same	Favor
Montana	1885	2	0	0	18	Same, 60%	1	679	Same	Oppose
Nebraska										
Nevada	1896	4	4	0	20	Same, 62%	?	?	Same	Favor
New Hampshire	1906	2	0	0	18	Same, 60%	120	778		Oppose
New Mexico										
New Jersey	1896	3	4	1	18	Different	350	4,000	Same	Favor
New York										
North Carolina	1922	2	2	0	18	Same, 60%	6	1,085	Increasing	Undecided
North Dakota	1887	2	0	0	18	Different	80*	?	Decreasing	Favor
Ohio	1884	1	4	1	18	Different	588	4,756	Same	Oppose
Oklahoma										
Oregon	1891	3	4	0	18	Different	50	1,000		Favor
Pennsylvania	1887	2	2	0	18	Different	600*	6,000*	Same	
Rhode Island	1870	3	0	0	18	Same, 75%	430	466	Increasing	Favor
South Carolina	1919	3	0	0	18	Same, 60%	7	800	Same	Immateral
South Dakota	1889	0	0	0	18	Different	56	865	Decreasing	Oppose
Tennessee	1893	2	4	0	18	Same, 60%	454	1,747	Decreasing	Oppose
Texas	1907	2	4	0	18	Same, 60%	10	7,552	Decreasing	Oppose
Utah	1892	3	0	0	19	Different	12	1,114	Decreasing	
Vermont	1895	3	0	0	19	Same, 50%	139	428	Increasing	Favor
Virginia	1890†	2	2	0	18	Different	108	1,319	Same	Oppose
Washington										
West Virginia	1907	2	4	1	18	Different	123†	1,390	Same	Favor
Wisconsin	1882	2	2	0	18	Different	552	2,301	Same	Favor
Wyoming										

\* These figures are approximated. Exact number is unobtainable.

† Most of these assistants are now fully registered.

‡ No definite age required.

Alabama abolishes the grade January 1, 1927; New York does January 1, 1928.

The following States do not register assistants:—Arkansas, Dist. Columbia, Florida, Georgia, Iowa, Nebraska, New Mexico, Oklahoma, Washington and Wyoming.

Twenty-six States have enacted laws making college graduation, long experience, and the passage of a hard examination prerequisites to registration as a pharmacist. These strict requirements are based on the theory that the practice of pharmacy is a work of such character as to demand a high degree of skill for its performance. It becomes pertinent to inquire at this point: "What are the duties that call for such tested skill?" The answer must, of course, be filling prescriptions and selling poisons. So far, so good. But—in twenty-one of the twenty-six States having prerequisite legislation there is an anomaly in the law, a rider, a joker—call it what you will—that goes on to say that a person with no college training,<sup>1</sup> with but two years' experience, and in age three years younger, may do the dangerous parts of a pharmacist's work provided a pharmacist is in charge of the store. Said pharmacist need not supervise the work, and during meal hours, "nights off," or brief vacations need not be within miles of the prescription counter, but he *must* manage the business if the law is to be satisfied.

An analogy to this sort of absurdity would be found if an assistant doctor with one-third the training of a graduate M.D. were allowed to practice medicine or perform operations in a hospital that was presided over by a regularly licensed physician. It is inconceivable, however, that registered doctors or the Board of Medical Examiners would tolerate such a condition, much less help to bring it about, as was the case in pharmacy. The public trusts the doctor's license—has respect for it—it also trusts any sort of pharmaceutical license when purchasing drugs. Doctors protect theirs by holding its standards high. Are we under no obligation to act similarly?

In the light of the foregoing facts and arguments, and particularly in view of the action of the National Association of Boards of Pharmacy last year, it is here recommended that the Section on Education and Legislation of the AMERICAN PHARMACEUTICAL ASSOCIATION go on record as opposing the principle of sub-standard registration, and that it use its influence along with the Boards in bringing about the "ultimate discontinuance" of the grade of assistant pharmacist.

On motion duly seconded it was voted to receive the address.

#### ABSTRACT OF DISCUSSION.

**Frank H. Freericks** said that the address of the Chairman must impress everyone, and the conclusions at which he arrives, his recommendations, he was inclined to believe, have met and will meet with general favor, however, there is something to be said for the assistant pharmacist—it is not a one-sided question—and in the address made by the Chairman (unless he had failed to hear) nothing is said about the desirability of having two classes of qualified men. He said that one of the greatest difficulties in pharmacy is brought about by the fact that the moment a young man becomes a Registered Pharmacist he has a desire to own a pharmacy, and this creates too many pharmacies, or what appear to be pharmacies.

In his opinion that has not been given the thought that it deserves. The qualifications of the man who compounds prescriptions should be the same as the qualifications of the man who owns the store, or nearly so, but there is reason in making some sort of a distinction and for providing for two classes—those of one should be permitted to own, supervise and control pharmacies, and those of the other may be engaged in them and do all the work that the owner may do—that, it seems to him is a very important feature that should not be lost sight of.

He thought the difficulty in connection with the Assistant Pharmacist, and the trouble caused thereby, has been and is in the fact that his qualifications are not properly provided for; if that were done, there is as rightful a place for the Assistant Pharmacist now as there was forty or fifty years ago, when he was deemed absolutely essential. He believed that there is need for the Assistant Pharmacist if he has the qualifications of the Pharmacist, or nearly the qualifications, based primarily upon length of service which will enable the owners of pharmacies to employ Assistant Pharmacists, and this will lessen the number of pharmacies.

**W. Bruce Philip** said that in the United States there are about 149,000 licensed assistant physicians—trained nurses. Practical contact with trained nurses had shown him that they are assistant physicians just as our assistant pharmacists are pharmacists. They take care of the physician's office in his absence. They do minor surgery, dress wounds and do many things that require immediate attention. He had no criticism for the nurse who honestly and conscientiously does her work, without interfering with or replacing the physician. In the dental schools, students in dentistry do considerable dental work under the supervision of members of the faculties.

<sup>1</sup> Except in Maryland, New Jersey, Ohio and West Virginia, where one year is required.

He commended the Chairman's excellent paper, in which he showed that pharmacy is progressing, prompted by high ideals. He did not take exception to the statement that the pharmacist, as an Assistant, has many faults and that the grade should eventually be abolished. He called attention to these facts and said that the law places honor and responsibility on professional pharmacy. In California the Assistant Pharmacist is not supposed to be in charge of a drug store, except during the temporary absence of the Licentiate in pharmacy; that means, if any problem comes up that he is not master of, it is expected of him to wait until the Licentiate returns or communicate with the Licentiate in pharmacy. He admitted that these instructions are lost sight of in many instances, and the Assistant takes charge of the store while the Licentiate goes hunting or on his vacation, nevertheless the law respects the Licensed Pharmacist; it at least evidences, whether the provision is lived up to or not, that pharmacy is an honorable profession and the Assistant, in an emergency, would wait or would communicate with the Licentiate in pharmacy. He said pharmacy should always progress, and, in his opinion, the recommendation of the Chairman is worth while and aims for a high ideal for pharmacy.

**D. B. R. Johnson** said that the Oklahoma law provides for the Assistant Pharmacist. Our duty is service to the public, not because of being in business as pharmacists—not because of being teachers—but because pharmacists give service to the public. He agreed that it is time to do away with registration of Assistant Pharmacist.

**R. L. Swain** said that in the address of the Chairman reference is made, somewhat in detail, to a report made to the National Association of Boards of Pharmacy. The figures, recommendation and conclusions contained in that report were obtained from correspondence with every State Board of Pharmacy in the United States. The State Boards of Pharmacy having to do with enforcement of the State pharmacy laws, its members learn of the conditions that obtain and the opportunity to view the actual workings at close range. It was the almost unanimous conclusion of the members that the Assistant Pharmacist registration had resulted, in a great many cases, in a practical nullification of the Pharmacy Act. Almost without exception the law uses the phrase, "temporary absence;" he had not found a legal mind proficient enough to define the phrase. There is one State in the country which defines it; that is, the Deputy Food and Drug Commissioner is empowered to enforce the Act. The question has never come up and has not called for any action on his part. During the last four years he had occasion to be thoroughly convinced that the registration of Assistant Pharmacist constitutes a menace and necessitates an apology for the standards made for professional pharmacy.

He hoped that the recommendations made by Chairman Beard, and which evidence carefully thought-out and serious study, will be adopted by this Section and that, eventually, pharmacy will be placed on the professional plane which it is entitled to occupy; this can never be done while the standards are inconsistent.

**W. Bruce Philip** moved the preparation of a resolution approving the abolishing of the registration of Assistant Pharmacist—this resolution to be approved by this Section and presented to the House of Delegates.

**William C. Anderson** thought that perhaps a resolution would not be necessary. The recommendation as adopted can be carried to the House of Delegates for action. A formal resolution is not necessary. Speaking further on the subject he said that there is no defense for the continuation of any grade or license in any State except as fully Licensed Pharmacist. Conditions might obtain to make it necessary. In New York there had been three degrees—the Licensed Pharmacist, Licensed Druggist and Licensed Junior Pharmacist, all having certain privileges—these are always being abused unless there are inspectors. The degree of Licensed Junior Pharmacist went out of existence on January 1st, that of Licensed Druggist, which is practically the same as Assistant in most States, will be discontinued January 1, 1928, and there will be only one license, that of Licensed Pharmacist. Legally, there will be no unlicensed person in charge.

**Jacob Diner** said the wording of the proposed law is that the absence of a Licensed Pharmacist from the store is a *prima facie* evidence of violation of the law. It is somewhat different from requiring a Licensed Pharmacist to be in charge, but who may be out of the store for one reason or another. Under this new law the very fact that a licensed man is not in charge, whether a sale is made or not, constitutes a violation of the law. In his opinion, that provides the only safe way to secure protection for the public.

**C. T. P. Fennel** said he had been in business since 1874 and had experienced the advances

which have taken place in pharmacy and also the disadvantages of the various laws. He did not approve of passing the responsibility for action to some other Section. This is the Section that ought to standardize education and legislation; consequently, he hoped that the recommendation of the Chairman would be adopted without a dissenting vote. The motion made by William C. Anderson was adopted.

REPORT OF THE SECRETARY.

BY H. M. FASER.

Early in March your Secretary mailed out several hundred circular letters requesting the members to contribute papers to our Section.

Those who have had experience in this work, I am sure, will agree that it is not an easy matter to get our members to take the interest they should and write papers. However, I am happy to report that we will have some splendid papers presented before our Section.

Owing to the fact that the Pharmacy Schools are now on the three-year minimum basis, I sent out the following questionnaire to all of the schools and Boards:

1. Since the Schools of Pharmacy are now on the three-year basis and much of the work consists of practical laboratory instruction, do you think experience in the drug store should be required in addition to graduation as a pre-requisite to Board examination?

2. If your answer is yes, please state how much experience.

3. Should the experience be before or after graduation?

To the above I received 32 answers from Board Secretaries and 40 answers from College Deans.

The replies were as follows:

BOARDS.		SCHOOLS.	
No experience.....	4	No experience.....	17
1 year's experience.....	11	1 year's experience.....	20
2 years' experience.....	16	2 years' experience.....	2
3 years' experience.....	1	5 years' experience.....	1
Experience after graduation.....	1	Experience after graduation.....	3
Experience before graduation.....	17	Experience before graduation.....	6
Experience before or after (immaterial) . .	10	Experience before or after (immaterial) . .	14

From the total replies received, we have 21 who would not require any experience in addition to graduation and we have 51 who would require experience. Of the 51 who would require experience, 31 state that one year is sufficient, eighteen would demand two years, one, three years and one, five years. Four would have the experience after graduation and twenty-three before graduation, while twenty-four state it is immaterial whether the experience be before or after graduation.

I regret that all to whom questionnaires were sent did not reply, but think the above is of some interest and gives us a fairly good record of how our profession feels about this matter of experience.

The report was received, on motion duly seconded and a vote.

PAPERS.<sup>1</sup>

The following papers were read or presented in abstract or read by title. The abstracts of discussions will accompany the papers when printed:

"The Quarterly System for Colleges of Pharmacy" (read by title), by A. R. Bliss, Jr.

"Shall the Mass Production of Pharmacists Be Continued?" (presented in abstract and discussed), by Robert P. Fischelis.

"Higher Standards Justified" (read by title because of author's absence), by Frederick J. Wulling.

"Changes in College Curriculum and Legislation" (read by title), by H. C. Christensen.

"The Quota of Pharmacology and Therapeutics in the Medical Curriculum" (presented in abstract and discussed—resulted in adoption of a resolution), by R. T. Lakey.

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<sup>1</sup> Abstracts of discussions will accompany papers when published, hence, omitted here.

"A Comparison of the AMERICAN PHARMACEUTICAL ASSOCIATION and the National Associations of Closely Related Professions" (read by author and discussed), by H. J. Goeckel.

"Pharmacy Plus" (read by author and discussed), by Wortley F. Rudd.

#### SECOND SESSION.

The second session of the Section on Education and Legislation was called to order by Chairman J. G. Beard at 2:00 P.M., Friday, September 17th.

The reading of papers was proceeded with as follows:

"Recognition of Pharmacy School Credits in Colleges of Arts and Sciences and Graduate Schools" (read by title, because of author's absence), by A. R. Bliss.

"Student Health Service at Purdue University" (read, no discussion), by Margaret S. Klemme.

"In 1825" (read by title), by Otto Raubenheimer.

"An Interesting Case," by Lyman F. Kebler.

"The Present Status of the Various Systems of Weight in English Pharmacy," by William J. Husa.

"Research Laboratories for AMERICAN PHARMACEUTICAL ASSOCIATION" (read by Robert J. Ruth), by Edward Swallow.

"A Bill to Regulate Charges for Prescription Compounding by Druggists," by Fred W. Connolly—it follows:

#### A BILL TO REGULATE CHARGES FOR PRESCRIPTION COMPOUNDING BY DRUGGISTS.

*Section 1.*—Physicians' prescriptions shall contain every ingredient prescribed of standard pharmacopoeial purity and strength, and of the exact amount, and a minimum charge of one dollar will be made by the druggist for such compounding. This law shall not apply to work of charity or benevolence.

*Section 2.*—It shall be illegal for any person to compound or dispense medicine unless the person is a registered pharmacist, an assistant registered pharmacist, or an apprentice under the direction of one of the above, except that a physician may administer medicine in an emergency or at the bedside under the same conditions as apply to the handling of narcotics by physicians; and in towns where there is no registered pharmacist.

The law shall become operative upon its passage.

A motion to receive same was passed.

#### ELECTION AND INSTALLATION OF OFFICERS.

The following were elected officers for the ensuing year and duly installed:

*Chairman*, H. M. Faser, Mississippi.

*Vice-Chairman*, H. C. Christensen, Illinois.

*Secretary*, M. N. Ford, Ohio.

*Delegate to the House of Delegates*, A. L. I. Winne, Virginia.

*Alternate Delegate*, William J. Husa, Florida.

The Section on Education and Legislation was then adjourned.

#### SECTION ON PRACTICAL PHARMACY AND DISPENSING.

Owing to the absence of Chairman H. C. Newton and the death of First Vice-Chairman L. R. Wagener, Second Vice-Chairman Adley B. Nichols convened the first session of the Section on Practical Pharmacy and Dispensing at 9:30 A.M., September 16th. Charles Netz was asked to act as Secretary owing to the absence of Secretary Gustav Bachman. The first order of business was the reading of the Chairman's address; it follows:

#### ADDRESS OF THE CHAIRMAN.

BY HOWARD C. NEWTON.

*Introduction.*—To this first meeting of the Section on Practical Pharmacy and Dispensing of the Seventy-fourth Annual Convention of the AMERICAN PHARMACEUTICAL ASSOCIATION

we have the honor and pleasure of welcoming you. We cannot but be inspired by our surroundings amid the pharmaceutical traditions of Philadelphia and, even without the added inspiration of the great Sesqui-Centennial Exposition, we feel that our present conference should result in lasting benefit to those who are so fortunate as to participate. It has been a little more than a year since we met for the discussion of those subjects which properly come before this Section and which mean so much to every real pharmacist. The past year has been one of great significance to us in our work. Only once in a decade do we have the publication of the new revisions of the U. S. Pharmacopoeia and the National Formulary. The tenth and the fifth revisions, respectively, of these great works have become official since our last meeting. Later, on our program, we shall hear comprehensive reports upon these books by men who have been most active in their revision.

#### THE NATIONAL FORMULARY.

It seems to us that, in our routine pharmaceutical activities, we do not realize the tremendous value of the U. S. P. and the National Formulary to the practicing pharmacist. When a new revision appears we are inclined to be content with a somewhat superficial survey of the changes that have been made and a mental resolution to discover the reasons for these at some future date. Especially is this true with respect to the National Formulary. There are hundreds of stores throughout the country that do not have a recent revision of the National Formulary and hundreds more whose operators do not know what is within its covers. Time and again have we been called upon by pharmacists for information that is readily available to them in this volume. And we have found that this condition is not a local proposition but exists in many places. We are convinced that the National Formulary is one of the few really great books prepared especially for the use of the practicing pharmacist. Sometimes we hear the criticism that the physicians do not prescribe the preparations in it, but it is our experience that when such a condition prevails it was brought about by a lack of knowledge on the part of the pharmacist. If the physician is shown that he can unfailingly obtain uniformly well-made official preparations from his pharmacist, he will prescribe these in preference to those of a proprietary nature. We, as pharmacists, should not expect the prescribing physician to keep us informed regarding medicines. Rather, it is a part of our service as pharmacists to inform the physician of desirable preparations such as are included in the National Formulary. We must bear in mind that the physician while in medical school devoted a comparatively small amount of time to the study of the preparing and prescribing of medicines and we are in a position to assist him in this phase of his work. We would urge every pharmacist to take his copy of the fifth revision of the National Formulary and actually study it until he becomes familiar with the details of its contents.

As we travel, we often see displayed on more or less conspicuous signs on drug stores, the hackneyed expression, "Prescriptions a Specialty." If we take the trouble to investigate we shall frequently discover that those within these stores did not realize that this particular sign was displayed, and that it was merely put there by a signmaker in connection with some advertising contract with a proprietary medicine company or other concern. Furthermore, it is evident in many cases that the store in question does not specialize in prescriptions and actually has considerable difficulty in compounding them in any manner. This, together with many other points of information relative to the subject, has brought us to the conclusion that there is still an opportunity for many stores really to specialize in prescriptions and yet not sacrifice any considerable part of the time that one feels must be devoted to merchandising. By such specializing we mean the paying of strict attention to the details of our dispensing of the prescription. First, of course, we must assume the necessary education and training as the basis for the development of a fine type of service which distinguishes the prescription from the ordinary order or sale. The employment of exceptional neatness, unusual accuracy, and extraordinary care in the selection of the dispensing container are fundamental in the development of a "specializing atmosphere." There are a hundred and one ways of making the patient feel that his prescription is given more consideration than any other order that he may present. In actual practice, we have observed a pharmacist of decidedly mediocre ability build up a remarkably fine prescription practice by this type of specializing in the details of his prescription service. Wouldn't it be wise for more of us to give additional attention to the finer points in the dispensing of our prescriptions?



## APPRENTICESHIP IN PHARMACY.

For some time we have personally endeavored to obtain a good conception of the value of what may be called an apprenticeship in pharmacy. We have gained much from conversation with successful men in other fields of endeavor, such as banking, law and engineering, as well as in pharmacy. We believe that those who are enjoying their success the most are the ones who are taking an active interest in one or more of their younger employees. While these young men do not consider themselves as apprentices, yet, in receiving the advice and counsel of the "boss" as they call him, they are enjoying a benefit which the apprentice once shared. On our program we have a paper on the subject of apprenticeship by one who has studied it in all its phases so we should not speak at length upon it at this time. However, don't you think that we as experienced men in pharmacy and as proprietors should take an active interest in developing one or more young pharmacists by giving them full benefit of our pharmaceutical experience?

## ORGANIZATION OF THIS SECTION.

In the work of our Section this year, we have been handicapped by the fact that all the officers of the Section were new in their particular positions and it required much time and correspondence to find out just what had been done by our predecessors as well as what should be done by us. We are indebted to Editor Eberle and Secretary Kelly for their generous assistance and to our Secretary, Prof. Gustav Bachman, for his efficient cooperation in preparing this program. We would suggest that it would be wise for this Section to follow the example of the Scientific Section in making its organization more efficient and more nearly permanent by having a term of office of more than one year for the Secretary of the Section. The retail pharmacists properly look to this Section for inspiration and active help in their everyday dispensing problems and with such a permanent organization we could more nearly fulfill our obligation to them.

## LEONARD RANSOM WAGENER.

One of the very sad events of the past year is the loss of our dear co-worker, Leonard Ransom Wagener, First Vice-Chairman of this Section. Professor Wagener was a talented and active member of our Association and his sudden passing came as a shock to all of us who had the pleasure of his acquaintance. In him this Section on Practical Pharmacy and Dispensing has lost a most able and willing worker.

In closing we wish to thank those who have contributed to our program and to urge all those present to enter into the discussions of the papers as presented in order that this conference may be worthy of its historic environment.

Motion was made that the address be received and take the usual course.—Carried.

## THE A. PH. A. RECIPE BOOK.

The report of the Editor of the AMERICAN PHARMACEUTICAL ASSOCIATION Recipe Book was called for. Editor Griffith referred to the title chosen for the AMERICAN PHARMACEUTICAL ASSOCIATION Recipe Book. He stated that the publication of a Recipe Book was suggested many years ago and referred to past workers on the book, namely, Prof. Otto Raubenheimer and the present Chairman, J. Leon Lascoff.

He stated that it was necessary for the Editor to select from the larger number of formulas those which would make the book comprehensive and at the same time avoid the inclusion of unnecessary formulas and duplications. He considered that the included formulas were quite representative and these had now been assembled in a number of departments. In the first Section there are about 700 formulas culled from various sources, notably foreign pharmacopœias and standard books of formulas. For the division of hospital formulas, the formularies of hospitals in various cities were drawn upon and used by permission. These have been classified and selected in order to be most serviceable. There is a division on cosmetics; these will not in every instance suit the individual user of the book; however, the formulas will serve as a guide.

A revision of the Recipe Book will doubtless prove to be a better book to the extent of being founded on this first edition and will benefit through the experiences of the users. He hoped to see the book in the greater number of retail drug stores, pharmacies, hospitals and laboratories. Most of the formulas have been tried out from the pharmaceutical standpoint. The book has a department of household formulas, of flavoring extracts, etc.

The Committee on Scope has been careful with the titles, avoiding as far as possible those having therapeutic indication, except in the formulas that have been taken from hospital formularies and for which permission was obtained from the hospitals to use these titles.

**Chairman Nichols** asked for discussion on the Recipe Book. Chairman Lascoff stated that he had prepared a paper which would be read before the Section on Commercial Interests and this will be printed in the JOURNAL in a succeeding issue. The paper which would be read before the Section on Commercial Interests contained that which he would say relative to the Recipe Book and answer the purpose of remarks that he might otherwise make.

**P. Henry Utech** paid a tribute to those who had made the production of the Recipe Book possible and moved a vote of thanks to Chairman J. Leon Lascoff and Editor Ivor Griffith.

**Jacob Diner** heartily approved the motion and stated that the use of the book would evidence its value. Every pharmacist finds the need of formulas and those in this book having been tried out will have a value above those that have been compiled without this care.

**F. E. Stewart** said that pharmacists generally will welcome the publication of the book as it will aid them by supplying them with useful formulas.

**Editor Griffith** stated that the Committee on Scope had endeavored as far as possible to select from the larger number those formulas that had real value and he took advantage of the opportunity to mention an additional department—the chapter on photograph formulas.

**William Gray** asked how the solutions for the clinical laboratory had been classified. Editor Griffith stated that these were in a separate division and the cross index included them.

#### PAPERS.

The following papers were read and discussed. The abstracts of the discussions will be printed with the papers when published:

"Some Interesting Facts about Mercurochrome," by Fitzgerald Dunning.

"Flavoring Qualities of Vanilla Tinctures," by H. M. Taylor and R. A. Konnerth.

"The Evolution of the Tablet Machine," by Edward Kremers and R. A. Konnerth.

"Production: Manufacturers' Part in Practical Pharmacy and Dispensing," by Josiah C. Peacock.

"Is an Apprenticeship in Pharmacy Worth While?" by Daniel O. Wolff.

"Solid Petroxolin as a Base for Peru Balsam Ointments," by J. L. Bredahl.

"A Note on the Stability of Solution of Arsenous and Mercuric Iodides," by Wilmer H. Schulze.

**Acting Chairman Nichols** referred to the address of Chairman Newton in which reference was made to the By-Laws adopted at the Buffalo meeting. As this had reference to printing the time of the services of the Secretary he thought some action should be taken at this time so that the Committee on Nominations might know how to act.

**P. Henry Utech** moved that the Section operate as in the past, namely, that the Secretary be elected for not more than two years.

**W. L. Scoville** stated that if the Section had some one in mind who was especially fitted for the work of the Secretary it would be well to elect some one for a longer period, but the same thing might be accomplished by simply reelecting the same person each year for the office.

**Leon N. Monell** thought that it would be advisable for the Secretary to serve for a longer period.

**P. Henry Utech** moved that the officers, with the exception of the Secretary, should not hold office for more than two consecutive years. The motion was duly seconded and carried. Chairman Nichols then appointed the following Committee on Nominations: J. C. Peacock, W. L. Scoville, Clyde M. Snow.

**Chairman Nichols** now asked that the discussion of Mr. Schulze's paper be taken up.

**I. A. Becker** asked relative to the glasses used as containers. The author replied that these were dark brown. Mr. Becker thought an investigation should be made of the effect of light on the solution due to the color and kind of glasses used.

**Mr. Dunning** thought that the suggestion by Mr. Becker was a good one and that it might be well to appoint a Committee to study the question, with cooperation from the glass manufacturers. The motion was seconded by F. E. Stewart.

**Mr. Monell** thought that the subject should be referred to the Committee on Research. Mr. Becker thought the suggestion a good one but called attention to the fact that it was quite

an undertaking. Mr. Dunning called attention to a paper that had been presented in the Scientific Section by Dr. Krantz in which the question of the effect of rays of light on digitalis was considered. He was certain that Dr. Macht would be glad to cooperate with a Committee appointed for the purpose of investigation.

It was duly moved and seconded that a Committee be appointed. Mr. Becker stated that this was a large subject and asked whether the problem could not be referred to the Research Committee.

The Chairman asked whether Dr. Macht could not work with the Committee. **W. L. Scoville** asked whether pharmacy was not a science and if so whether this Section was not in position to take up the problem; and secondly, he wanted to know whether the investigation which was deemed advisable could not be made possible. He hoped that Mr. Dunning's motion would pass and that the Committee would be appointed by the Section on Practical Pharmacy and Dispensing.

**Mr. Monell** was not opposed to the motion but in his opinion the problem could be studied generally.

**F. E. Stewart** stated that he had seconded the motion and he knew of no reason why the Committee appointed could not work with the Research Committee, if they decided to do so.

**Mr. Dunning** thought that the Committee should secure information from every available source. P. Henry Utech agreed with the previous speakers. Mr. Becker did not oppose the appointment of the Committee but he realized that the subject involved considerable investigation and would mean work during several years.

**Mr. Dunning** thought Mr. Becker should be a member of the Committee; that all the members appointed should be interested in the subject so that results would be obtained. He would be very glad indeed to cooperate and was certain that the cooperation of Dr. Macht could be had, and Dr. Arny could probably suggest sources of information which would be helpful for the Committee.

The motion to appoint a Committee was duly carried.

**Charles J. Clayton** thought that the program should indicate the activities of the authors of papers. Mr. Dunning thought that the general program should indicate on what page the program of the Section is printed. A motion carried to call this to the attention of the ASSOCIATION.

The first session of the Section on Practical Pharmacy and Dispensing was adjourned.

#### SECOND SESSION.

The second session of the Section on Practical Pharmacy and Dispensing was called to order by Chairman Nichols, Friday, September 17th, at 1:30 P.M.

#### PAPERS.

The first paper of the afternoon session was entitled "Some Notes on the Quality of Pharmaceutical Preparations," by R. L. Swain. As a result of the discussion of this paper a resolution was prepared which was finally referred to the Council for consideration.

A paper was read by F. E. Stewart on "The New Pharmacy."

On account of the absence of the author the paper by C. H. Stocking on "Fortifying the Prescription Counter" was read by title.

As a result of the reading of a paper by W. Wilson McNeary entitled "A Suggestion That the AMERICAN PHARMACEUTICAL ASSOCIATION Secure Membership in the American Conference on Hospital Service," a resolution was adopted asking the House of Delegates to arrange an early affiliation of the A. PH. A. with the American Conference on Hospital Service. This resolution was afterward referred to the Council by the ASSOCIATION.

A paper was read by W. Wilson McNeary on "Flax Wax."

Chairman Nichols asked that his paper on a Prescription Clinic be passed over for the time and called for the reading of a paper on "Pharmacy as Is, as Was, and as It Should Be," by S. W. Leidig, which was read by Miss Reeves.

A paper on "Incompatibilities in Prescriptions Containing Epinephrine" was read by title owing to the absence of the author, Marvin J. Andrews.

S. L. Hilton presented a paper on "Ampuls and Ampul Filling."

A paper was presented on "A Study of the Stability of Physostigmine Solutions," by John C. Krantz, Jr., and Frank Slama.

#### OFFICERS.

A report of the Committee on Nominations was presented as follows: For *Chairman*, Adley B. Nichols, of Pennsylvania; *First Vice-Chairman*, Fitzgerald Dunning, of Maryland; *Second Vice-Chairman*, Ralph E. Terry, of California; *Secretary*, Charles D. Netz, of Minnesota; *Delegate to the House of Delegates*, Clyde M. Snow, of Illinois. The report of the Committee was accepted and the officers elected and thereafter duly installed.

#### JOINT SESSION SCIENTIFIC SECTION AND SECTION ON PRACTICAL PHARMACY AND DISPENSING.

The usual annual general session of the Section on Practical Pharmacy and Dispensing was held with the Scientific Section on Friday, September 18th, at 11:00 A.M. The program of this session is given in the minutes of the Scientific Section, which see.

After the installation of the officers of the Section on Practical Pharmacy and Dispensing the Section was adjourned.

#### SECTION ON COMMERCIAL INTERESTS.

The first session of the Section on Commercial Interests was called to order by Chairman Ambrose Hunsberger on Wednesday, September 15th, at 9:30 A.M. He requested that his address as Chairman of the Section be held until the next session.

Secretary Bernard M. Keene stated that he had no report to make; he had received a letter from John Culley of Ogden, Utah, in which he stated that on account of an accident he was prevented from attending the meeting in Philadelphia, and that he would, if possible, send his paper on "Calculating the Retail Price of Drugs, Chemicals and Pharmaceuticals." It was regretted that Mr. Culley could not be present to present his paper.

#### COMMITTEE ON NOMINATIONS.

Chairman Hunsberger appointed P. Henry Utech, J. G. Beard and Leonard Seltzer members of the Committee on Nominations.

Chairman Hunsberger stated that Mr. Seltzer had prepared two papers and asked him to present the one on "Making Our Own Efforts the Basis of Our Destinies." Following this, a paper by Robert P. Fischelis on "Is the Pendulum Ready to Swing Back?" was called for, which as he stated bears a close relationship to the paper by Mr. Seltzer. There was a lengthy discussion of the paper and an abstract will accompany the paper when published.

The next paper was presented by Leonard A. Seltzer on a "Procedure in Prescription Pricing." This paper also was discussed at length and an abstract of the discussion will accompany the paper.

J. G. Beard asked that his paper on the "Application of Salesmanship to Proprietary Remedies" be deferred until the next annual meeting.

A paper on "Professionalizing Commercialism" was read by Robert J. Ruth.

After the reading of the following papers the first session of the Section on Commercial Interests was adjourned. "Our Problems," by Samuel S. Dworkin, and "A Merchandisable Acidophilus Culture," by Josiah C. Peacock.

#### SECOND SESSION.

The second session of the Section on Commercial Interests was called to order by Chairman Hunsberger on Friday, September 17th, at 9:00 o'clock.

The first order of business was the reading of the Chairman's address, it follows:

#### CHAIRMAN'S ADDRESS.

BY AMBROSE HUNSBERGER.

Considered casually, one year would seem to be an interval of time which ought to permit a thorough and comprehensive analysis of the problems which relate to the commercial phases of the practice of pharmacy as they manifest themselves from day to day.

Viewed from the standpoint of your Chairman's experience during the past year, however, that particular interval of time was found to be totally inadequate for the purpose referred to, not so much on account of any lack of ambition to complete our average task during the period usually allotted thereto, but rather because of the limitations which circumscribe the capacity of every human being to do just so much and no more. This limitation of our capacities for work is an inexorable, yet beneficent, law of nature which, in its personal application, is the reason for the brevity of this address.

Perhaps it is just as well, since the program of papers to be presented before this section at this meeting is rich with splendid material which reflects the thoughts and experiences of able and conscientious members from many sections of the country, and should therefore represent a composite view and treatment of the various problems that plague the pharmacist and also serve as an index to the progress which has been made during the year toward bettering the material conditions which are vital to the continued and successful conduct of pharmaceutical practice.

As will be noted by a reference to the program the subjects treated by the authors of the papers cover such problems as are involved in determining a rational system for fixing adequate compensation for the professional service rendered by the pharmacist, as well as the equally intricate question as to how the retail selling price of drugs, chemicals and pharmaceuticals should be calculated.

Other papers treat matters of outstanding commercial interest and include an analysis of the trend away from intensive merchandising and a corresponding rebirth of interest in the professional side of pharmacy; an interesting presentation of the obligation of the pharmacist to the public in connection with the distribution of proprietary medicines; a consideration of the very vital problem of the inadequate discounts which are allowed to retailers by certain pharmaceutical manufacturers; an interesting presentation of the professional obligations of the pharmacist; a study of the wisdom of accepting free goods as a reward for over-buying; a plea in behalf of U. S. P. and N. F. preparations as worthwhile therapeutic agents; a research into advertising methods; a review of the advantages accruing to the retail pharmacist through the publication of the Recipe Book; and other topics which cover many of the commercial phases of the practice of pharmacy adequately and well.

Other questions of paramount interest which might have afforded interesting texts in the preparation of an address by your Chairman are receiving the attention of the pharmaceutical organizations of the country which leaves him free of any feeling that, on the whole, any of the problems of pharmacy are being neglected, or that the Section on Commercial Interests has functioned any less adequately during the past year than has been its custom. Its record of achievement lies in the program to be submitted, and in the further constructive action that may follow the presentation and discussion of the topics contained in the various contributions.

With expressions of keen appreciation of the honor conferred and the courtesy extended in selecting him for Chairman of this Section, and with sincere acknowledgment of his obligation to the members who have so whole-heartedly contributed to the success of the program, your Chairman submits this brief greeting.

#### PAPERS.

The following papers were read: "The Cost of Free Goods," by W. Bruce Philip, and "What Does It Profit You?" by P. Henry Utech.

Following the discussion of the paper by Mr. Utech it was voted to appoint a committee of three who should study the inadequate discounts and arrange conferences with manufacturing pharmaceutical firms and report to this Section next year.

The next paper on the program was entitled "Exercising Our Prerogatives," by Samuel L. Hilton; this was discussed at length.

Chairman J. Leon Lascoff presented a paper on "The Value of the Recipe Book to the Retail Pharmacist," which largely constitutes a report thereon and outlines its departments and presents in detail the value of the book.

Samuel Wanamaker presented a paper on "A Research in Advertising." This was followed by a paper on "What Druggists Ask an Editor," by Walter M. Chase.

John H. Webster read a paper on "Popularizing Official Preparations," which resulted in

a resolution protesting against preparations under U. S. P. and N. F. titles, but of a different strength, even though the label states a variation from the standard.

#### OFFICERS.

The Committee on Nominations reported as follows: For *Chairman*, Bernard M. Keene, of Indiana; *Vice-Chairman*, Benjamin Bialk, of Michigan; *Secretary*, C. Leonard O'Connell, of Pennsylvania; *Delegate to the House of Delegates*, Ambrose Hunsberger, of Pennsylvania; *Alternate Delegate*, W. F. Gidley, of Texas.

The report of the Committee on Nominations was accepted and the nominees elected and installed.

The Section on Commercial Interests was then adjourned.

#### SECTION ON HISTORICAL PHARMACY.

The first session of the Section on Historical Pharmacy was called to order by L. K. Darbaker at 10:00 A.M. Wednesday, September 15th. The first order of business was the reading of the Chairman's address; it follows:

#### THE CHAIRMAN'S ADDRESS.

BY L. K. DARBAKER.

We extend cordial greetings to the members of the Historical Section of the AMERICAN PHARMACEUTICAL ASSOCIATION, with the hope that all may enjoy this conference and be richly benefited thereby.

It is my purpose to consider Astronomy and Alchemy.

The Chaldees, Arabians and Egyptians were the parents of astronomical knowledge as well as chemical knowledge. Their lives, as those of all nomadic tribes, were spent in the open air, roaming over widely extended plains, where the clear atmosphere grants to observers frequent opportunities for beholding the whole expanse of heaven bestudded with innumerable hosts of stars. Their minds were directed towards the movements of these heavenly bodies, and though errors may be detected in almost all their calculations, an astonishing amount of accuracy may be found amid these errors. Eclipses of the sun and moon were noticed and many correct conclusions were obtained. Laboring in the dark with reference to the general laws which regulated the starry universe, and noticing with singular accuracy the regularity of planetary movements and the probable existence of laws governing perturbations, they concluded that an influence was exerted by the stars over the destiny of man. Astrology came thus into existence, not in full panoply as Minerva from the head of Jove, but instead by slow development it reached its full growth and the influence over mankind. The planet which shone at birth was considered the guardian of man, even down to the latest period of his existence. Its movements and position in the heavens were supposed to be portentous of good or evil to his future career. And as a Roman general consulted the augurs on the eve of battle for advice and with religious devotion followed their directions, so his successors in the school of predestination had the awful book of the astrologer laid before them, and then surrendered themselves to its pretended prognostications for the future. Nativity regulated the aspirations of man and controlled all enterprise, for what believer would have dared an enterprise when an unfortunate conjunction of stars had been interpreted as unfavorable to its successful termination? The trite maxim, "quisque suae fortune faber," was made to read, "Every man's destiny is regulated by his natal star."

#### ALCHEMY.

To the alchemists of olden times, reaching down to a late period in the Christian era, we must look for some of the most astonishing discoveries in science. These philosophers, actuated by a desire to prove certain predetermined principles, and to obtain certain imaginary substances, performed many singular experiments, and discovered much that has been useful to mankind since their day. They taught that matter was resolvable into four elements, and that out of these it was possible to recreate all things, could the proper proportions be obtained. Each of these elements was under the care of a peculiar class of genii, who doled out to the alchemist occasionally some of its secrets as a response to his most importunate invocations. The gentle and

graceful sylphs floated in every breeze that wafted by the theurgist's cell. Nymphs filled every nook from which flowed gushing fountains, the rough and mystic gnomes presided over all who delved the earth, guarding its innermost recesses, and the salamanders lived, moved and had existence alone in the purity of the flame which was kindled by mystic rites and kept alive by magic ceremonies. These genii were the deities to whom the alchemists offered prayers, and carried away by their own poetic fictions, they endeavored selfishly to keep all the results of their investigations to themselves—as the Monk of Illchester expressed it, “that they might conceal the mysteries of both art and nature from those unworthy of possessing them.” In some periods and places this secrecy was necessary to avoid persecution for “being in league with the evil one.” Since human life was too short to prosecute such discoveries to the extent of their wishes, and their fortunes were too frail to bear the expense, the alchemists were naturally, aside from prospective rewards of power and glory, led in pursuit of a substance which should have the singular power of prolonging human life beyond the short period of years allotted by divine command; and of a stone which should convert baser metals into those of more magic importance to the eyes in the dealings of mankind. Investigations of this kind gave the world a knowledge of some of the most important carbonate alkalies, minerals and mineral acids, and although their authors toiled on in the prosecution of the impossible and lamented the fruitless nature of their task, their chimeras resulted in incalculable benefits to us. The toiling alchemist watched with untiring assiduity the contents of his crucible, and, deluded by the flimsy creations of his own imagination, expended his fortune, time and existence in endeavors to prove his favorite theory. His profession was an attractive one, surrounded by the prospect of a long life, unaffected by disease, and with wealth incalculable. He sought the realization of his ideas with all the enthusiasm of glowing youth; and even as age crept over his physical system, deadening his sensibilities and stagnating the rich fluid which once coursed so gaily through his veins, he still clung with the same tenacity to their plausibility, and only with the total extinction of his vital powers resigned his position by his furnaces to younger and more sanguine spirits.

The science was attractive, and drew many from the busy ranks of men to spend their lives over the stupefying, death-producing vapors of the laboratory. Gold and long life are both attractive features in any age and to any nation, but here they were thought to be offered to man in exchange for the mere seeking. The furnace fires glowed with the white heat of calcination from morning's dawn until the disk of the sun rose again above the horizon on the morrow; the mystic rites of a Geber were performed with all the solemnities their importance demanded; the spirits presiding over the dark deeds of alchemy were invoked with fear and trembling, until by frequent refusals to appear, the alchemist became so bold as to command their presence. But all in vain; the mysterious rites of Geber proved to be as unavailing in the spirit world as his works were unintelligible to human comprehension; and Plutus with his court, like the coquette of modern times, seemed only the more disposed to fly away as his admirers became the more solicitous for his company.

Their labors were not fruitless, however, since from their crucibles were being turned out rich discoveries which have become to us of more practical value than all the placers of our American El Dorado. Though alchemy showered down upon her votaries her choicest gifts, as from a cornucopia, still they were unnoticed. Urged on by a desire to penetrate the arcana of nature, nothing less than the attainment of this desideratum could satisfy their longings and wishes. They had taken one step forward in the progress of physical investigation, that of experimentally testing what had before existed only as speculative opinion. Their boldness in this way demands fully as much admiration from us as their perseverance. Every step they took was on *terra incognita*, and without a guiding star to conduct them through the devious paths with which this land abounded. Their predecessors had satisfied themselves with what was apparent to the senses, and never endeavored to scan the mysteries of nature. It was an advance in the history of the human mind, meriting our highest respect.

An additional impulse was given to this work with the establishment of monastic orders, in which monks separated from the world and devoted to meditation, found a field to relieve the tedium of their lives. Their names, notably that of Basil Valentine in the fifteenth century, have become renowned because of many important discoveries.

Gradually the alchemists themselves gave up all credence in the existence of the two grand objects of their search, and gave way to a new class of investigators who combined the astrological

rôle of the Chaldean with the alchemist's alembic. A new group who "pretended the cure for all the ills to which human flesh is heir," flooded the land. Another delusive idea flitted across the human mind, and caused a long series of laboratory investigations. It was the probable existence of some general antidote to kill all poisons, which, after the Italians was called "orvietan;" and here again, as in the search for the philosopher's stone, mankind has been greatly benefited by the accidental discovery of many agents of real utility to the medical profession.

The budding of Science was of but little promise to the world; for the plant had been secluded from the brilliant light of day and received its nourishment only from baseless abstractions and crude unshapen theories. The physical world had not as yet been illuminated by the rays of the Sun of Truth, but was beginning to hail the dawn of better things by the few straggling beams of light which were showing themselves above the eastern horizon. These were received as precursors of the full appearance of the glorious orb, when the minds of men should be prepared to appreciate it. The great obstacle in Christian countries was an indisposition to interpret the Bible in any other way than had been taught for centuries. Hence Galileo, when arraigned before the Inquisition for promulgating heretical, or, as they must have appeared then, infidel views, was forced to recant his own theories. It was a humiliating thing to have the man of genius bow before the narrow-minded ecclesiastics, to hear him protest that his darling theory was a chimera, and that his arguments in its favor were only hallucinations of a disordered brain. But while we condemn the inquisitorial authorities for interference in the onward course of science, we should honestly take the prejudices of all Christendom into consideration, and see how adverse we ourselves would be to an overthrow of opinions based upon the sanction of centuries. Indeed, there are many subjects, as incontestably true as the motion of the earth, which are at the present day received with as much coldness as Galileo's theory was in the days of old.

Experimental investigation by scientific men of those days was the forerunner of something brighter and better in the future, bidding fair to put to flight the thick pall of darkness that enshrouded physical phenomena. After a night of universal gloom, the bright glimmerings of dawn were hailed by the world with joy. It was the transitional period, the bridge of Mohamet, leading from darkness to light. Such was the past in the physical sciences.

A new method of observation now characterizes the investigating spirit of man. "Striving to elevate itself above the narrow requirements of mere description," and not binding itself to "an accumulation of isolated facts," phenomena are investigated, not that pecuniary benefit may necessarily result to the investigator, but that he may add his mite of knowledge to that which has been accumulating from the birth of time. We frequently hear, in this present day of "useful knowledge," and from lips of those who think utility is best measured by the percentage it affords one for the expenditure of time and fortune, that it is synonymous with pecuniary profit. This idea emanates from minds carefully secluded from the light of truth by a dense cloud of ignorance. All knowledge is useful, whether it be physical, mental or moral, and contributes to raise man higher and still higher in the scale of preferment. It forms the surest source of delight, the noblest point of aspiration. We acquire an acquaintance with certain facts in the physical world, which gives us an impetus in a certain direction, and sets our bark afloat in the sea of speculation. Though there may be but one star by which we guide our course over the dark ocean, yet it will prove to be a polar star, and we shall finally attain the desired land. The rude wind may blow us back to the point from whence we started, yet the bold scientific investigator of the present knows no fear; undaunted, he pushes his boat vigorously along the angry waves, and by sturdy pulls presses onward, until at last the joyful vision of land in the distance presents itself, the reward of his labors.

The scientific men of the present owe the great success which has attended their labors to the disposition to prosecute investigations with unbiased minds. They have not, as a general rule, started out to a dogma, which presented itself to their imagination as real, or to force all nature to bow to the rule laid down for her by themselves. Such freedom from prejudice has qualified them to appreciate every result of investigation, even though it should upset the theories of centuries. Reason walks side by side with experiment, and has always been found to explain, after due study, all apparent lawless aberrations. Here investigation is carried on to find the truth, rather than to force nature to stand up to the support of a peculiar theory. The real, as such, in the physical world is deemed far more valuable than a host of baseless fancies, and when found, is appreciated for its own sake, the lover of nature knowing no utility greater than



the attainment of truth itself. Hence elaborate researches into nature with a view of knowing everything that should be cognizable have resulted to us in the exposure of the richest mines of truth, separable with ease from the dross concealing it. In the greatest number of instances such researches were carried on by the Philosophers without any definite object in view, or ready to seize what might ensue and appropriate it to the use of science. The accidental fall of an apple directed the mind of Newton to the discovery of gravitation, and was the cause of the discovery of the laws governing our planetary system. The facts here have been known for ages but their importance had not been considered until the mind of this great philosopher seized them for the illustration of a general law.

In this present day we are able to separate the wide and illimitable field into a number of divisions, to each of which a separate corps of investigators has been by choice assigned. Where three hundred years ago one man was expected to be perfectly acquainted with the whole field of observations, hundreds of minor divisions have been made, each of sufficient magnitude and importance to claim the undivided attention of one person; and thus, instead of superficial knowledge of all, a profound acquaintance with one is the prime consideration.

Certain facts have been recognized as centers of others and different theories have been investigated, and hitherto irresolvable suppositions have given way to the latter, and superior knowledge has revealed their innermost structure. The investigator no longer roams amid the fantastic notions of his predecessors, and sees signs and prodigies in the heavens of a supernatural character, but instead recognizes all as subject to a well-regulated power of universal law. There is a natural dependence, each upon the other, all belonging to one common system, the result of the Creator's handiwork. Phenomena upon phenomena arise before our bewildered vision, and each result of investigation only gives rise to further and diligent study. The results of empirical investigation are daily accumulated around us, until at last they arrange themselves in due form under the influence of a more thorough and effective system of philosophizing. By generalization these facts are made useful and subservient to the cause of science; as the prospect before the scientist grows wider and more extended his spirit flags not, for knowledge brings its own reward and confers strength adequate to any labor. His views of nature direct him to the majesty of the supreme Governor of all, and he is lost in wonder and amazement; the prospect of the worlds filling all space overpowers his intellect and he bows the reverential knee before the all-creative power.

Alchemy has, under the genial influence of sounder views of its end and design, been converted into a number of sciences which bring their devotees into the laboratory and there the various mechanical aids supply them with means of aiding mankind. Here the most incorrigible of metals, subjected to the influence of some discovered gas or reagent, have their deadly powers transmuted into life-bringing agents, which the sons of Aesculapius use with the bright prospect of conquering the fatal effects of disease. Science enters the work-shop and factory, and on all sides the practical results of its operations meet you in novel forms and useful compounds. It enters your cuisine, and holds the cook by bounds of its commands. It walks forth under the broad expanse of heaven, and the full blaze of Truth designates it as the Interpreter of Nature, the Pythoness of Mysteries. The results of its most intricate mazes are as intelligible to the first dawn of reason as to the matured and thoroughly trained mind; to the child as well as the gray-haired veteran. Science widely opens its portals to all classes and conditions, and no longer is actuated by a mistaken notion of mystery to surround itself with an impenetrable veil of secrecy. Instead of the Philosopher's Stone, we have learned the properties of metals and their manifold combinations, the properties of the vegetable world, the character of life-sustaining atmosphere, the deadly nature of gaseous emanations, and so on. Instead of the elixir of long life, we have found antidotes to disease, and have learned to assist nature to free herself from peccant humors; we have learned to bring relief to the poor sufferer tossed upon a bed of anguish under the racking effects of burning fever and to infuse life and vigor into the dying man and cause him to rise from his dejected condition as a phenix from the ashes of his former self. Instead of a universal solvent we have found means to combine the most heterogeneous substances and thence educe new agents of great utility. The vegetable world has been forced to give up its valuable properties and thus, by a happy knowledge of science, the vilest weeds become of utmost importance to mankind. Only after a long and protracted investigation, however, have these results been obtained, and her votary can now exclaim:

"I have made familiar  
The blest infusions  
That dwell in vegetables, in metals, stones:  
And I can speak of the disturbances  
That Nature works and of her cures: which give me  
A more content in course of true delight  
Than to be thirsty after tottering honors,  
Or tie my treasure up in silken bags,  
To please the fool and death."

The investigations of the present have only opened the pathway to future research and the field now extends before us wide and illimitable. The characteristic spirit of the history of science will be that of deep longing after a knowledge of the Arcana of Nature and an elevation of man in this way towards a noble condition. The present age is engaged only in preparing the formulæ, which the successors will work out with mathematical accuracy, and educe therefrom the most startling results. Thus all things have worked for the proper advancement of knowledge. In the past naught was done but to observe a host of empirical phenomena. The present has classified them and deduced general laws. It is left to the future to investigate, under the guidance of these laws and such as may hereafter be discovered, the great system of the Universe. How grand, then, is this department of human knowledge! Its importance is seen in every profession and makes every trade acknowledge its right to be thoroughly studied. The wild fancies of our forefathers have, it is true, been swept away by the onward march of progress, the light and graceful sentiment of pastoral poetry and music have disappeared before the enthusiasm of the scientific naturalist, the quiet recesses of sequestered forests have been invaded by the adventurous student of nature. The banks of the beautiful streams, formerly occupied by the wild, nomadic Indian, are now resounding to the whirl of machinery, while the philosopher views the triumph of his researches in the factories which cover their banks and in the misty clouds which mark the path of steamboats and trains. Along miles and miles of highways he sees the automobile speeding on its journey and overhead he sees man pass the birds in their swift flight. The sun is emulated by brilliant artificial lights which have replaced the dim tallow candle. Communication by wire and without wire encircles the earth. Melodies from other continents make musical his home. Such changes are hailed with delight, for they do not announce the death of poetic feeling, but a change of its basis from the flimsy and unreal to an accurate knowledge of natural phenomena. The dryads have been ejected from their quiet haunts and Pan no more shall pipe through the forests. Their day is past. Yet is poetry not dead, but is now a chrysalis from whence she shall come forth decked with greater glory and by an intimate communion with truth portray to the mind of the world the ideal and spiritual. The future will connect the ideal with the real, and the abyss which now apparently separates them shall be bridged over by the hand of science and their close union the more beautifully expanded.

The ideal reigned and controlled, without opposition, the mental activity of man. The practical and real then usurped its place. It is to the future the noble task is assigned of showing that the two are properly but different phases of one and the same thing. The ideal and the unreal are now considered as synonymous terms, but as the development of science shall more perfectly set forth the truths of nature, they will be found as different as the light of day is from the veriest gloom of night. This forced union will be discovered and their contradictory positions clearly understood. Then the ideal shall be found to show itself to the perception of man truly in the world of the real, and then only. In proportion as this relation is practically understood will our advances be higher and higher in the realm of knowledge, the grosser perceptions that have clogged fancy will be thrown off under the genial influence of truth and imagination will represent thoughts in their proper garb—that of reality. Thus the future will produce union between the cold light of reason and the flashing fires of imagination; and what of interest the latter may lose in the absence of the unique or grotesque, it will more than gain in the attractive beauties of the gorgeous robes of truth. The simplicity of our ideas will render them more beautiful than all the meretricious cavortings of a lawless imagination.

The future of science is large, and great is her duty, and need I add one word of inducement to you to devote your leisure hours to its cultivation? The field is before you; open wide for distinction, free as the balmy zephyrs which play so gratefully over the heated brow of the

traveller as he stays his steps by some gushing stream; no oppressing care is there or fear to molest, no dark passion or hovering melancholy to dampen ardor, but all free and open to fresh, vigorous, active and untiring labor. The exquisite enjoyment that springs from the pursuit of truth is a greater reward than the laurels which cover the head of the bloody conqueror: it brings more pleasure to the innermost soul of man. And, having labored in the flower path of science and done battle valorously against the enemies of truth and revelation, until the dark struggle of death announces a close of earthly labors, may you all acquire a deep insight into the mysteries of nature and a reverential obedience to the laws of the Creator of all things.

On motion duly seconded and carried it was voted to have the address take the usual course.

Secretary W. F. Sudro reported the addition of several papers and the program of the Section on Historical Pharmacy was separately printed.

The report of the Historian was presented; it follows:

#### THE HISTORIAN'S REPORT.

BY E. G. EBERLE.

The completion of the Headquarters will stimulate the interest in the Section on Historical Pharmacy, for this is concerned with the Library and the Museum. More and more the subject of history related to Pharmacy is being studied and applied.

August 17th, a number of pharmacists from various countries met in Innsbruck and organized an historical society with Dr. L. Winkler, of Innsbruck, as *President*; H. Gelder, of Berlin, as *Vice-President* and G. Urdang, of Berlin, *Secretary*; F. Ferehl, of Mittenwald, *Treasurer*, and W. Zimmerman, of Illenau, *Historian*. Otto Raubenheimer, who attended, was named correspondent for the United States. The purpose of the Society is to bring together those who are students of pharmaceutical history and the members recognize pharmacy as a profession engaged in the service of the public. Invitations have been extended to pharmacists of all countries to join in the work. The annual dues are 5 marks (gold).

We have been informed that a publisher of medical and pharmaceutical periodicals has announced his intention to prepare a history of pharmacy—speaking from memory—a history of American Pharmacy. The subject, whether general or treating only American pharmacy, represents quite an undertaking. The AMERICAN PHARMACEUTICAL ASSOCIATION does not seek to exclude others from writing a history of American pharmacy, but an organized committee of the ASSOCIATION has such work well under way and, certainly, publicity has been given to this undertaking, at least since 1923, through the annual reports of the Section on Historical Pharmacy. The *Medical Life* of February issued an American Pharmacy number.

Macaulay said: "A perfect historian must possess an imagination sufficiently powerful to make his narrative sufficiently affecting and picturesque; yet he must control it so absolutely as to content himself with the materials which he finds, and to refrain from supplying deficiencies by additions of his own. He must be a profound and ingenious reasoner; yet he must possess sufficient self-command to abstain from casting his facts in the mould of his hypothesis."

The historian's aim must be to present a truthful narrative and record of facts.

Since the last meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION the office of the Historian has been moved to Baltimore and much material that was stored in Chicago has been moved here; all of this, however, which consists largely of books, is in cases and will likely so remain until moved to the Headquarters which it is hoped will become a realization within a few years.

Sixteen bound volumes of the American Journal of Pharmacy have been received from the library of our veteran member, Joseph L. Lemberger, through the kindness of Mrs. Lemberger. Mrs. Josie Wanous Stuart, of Minneapolis, has put aside for the ASSOCIATION a number of bound volumes of various pharmaceutical publications. A number of the pharmaceutical manufacturers have stated that they were holding machinery and apparatus of by-gone days which have historical significance. Several of the publishers are putting aside bound volumes of their publications so that the Library may have them when the Headquarters is completed. All of this is encouraging. It is hoped donors will advise the Historian.

Both the Library and Museum will be service divisions and thought is being given to the methods and means by which these departments can render the greatest service. Donations

for both have been promised; however, much more is required, not only for the service but for endowing both of these divisions so that the work may be properly carried on.

Last year proof pages and letters bearing on the first U. S. Pharmacopœia were exhibited. This time the Historian has more letters of that period. He also acquired by purchase a statement of the year 1773 rendered by the drug store of which General Mercer was chief owner. The document is in bad condition and therefore a reduced copy is shown instead of the original. Wide publicity was given to the article appearing in the June JOURNAL, largely through the coöperation of the Drug Trade Bureau of Public Information. Quite a number of old volumes are promised and will be added to those already stored in Baltimore.

An event of interest and important to pharmacy, because an American physician-pharmacist gave to sufferers the boon of ether-anesthesia, was memorialized at the U. S. Capitol; namely, the discovery by Crawford W. Long; it was through the continued and persistent efforts of Dr. Joseph Jacobs that merited recognition was given by placing the discoverer's statue in the Hall of Fame at the Capitol. Our fellow-member has presented a paper for this Section relating to the event which marks an epoch in medicine and shows the close relation, if that were necessary, of medicine and pharmacy.

The fourth International Botanical Congress met in Ithaca last month. The interest in the proceedings for pharmacists is that of Pharmacognosy and Pharmaceutical Botany. Ex-President H. H. Rusby writes that the work of this Section in succeeding congresses is destined to grow apace, and it will, in future, be a just ground for national pride that its birth occurred at the first congress held in this country—this is the historical connection; Dr. Heber W. Youngken's efforts were largely responsible for the creation of this section.

In recent years the history of American research in pharmacy is recorded in the census of the Conference on Pharmaceutical Research; that of this year is gratifying in that it shows a larger number of research workers than last year. This year's list contains 297 names against 239 of last year's census.

While Priestley was not a pharmacist, it was the celebration of the centenary of his great discovery that led to the organization of the American Chemical Society. A number of our active members participated at the ceremonies in Northumberland, in 1874, and encouraged the formation of the Society which has just celebrated its 50th anniversary in Philadelphia. The Historian has the proceedings of the 1874 meeting. Our President, L. L. Walton, attended the ceremonies at the Priestley home on September 5th.

Not only is this the Sesqui-Centennial of the Declaration of Independence but also of the first military Pharmacopœia (1775), written by Dr. William Brown at Lititz, Pa., which, together with other efforts to establish a standard that would be followed by doctors and apothecaries, led to the preparation of the U. S. Pharmacopœia under the direction of Dr. Lyman Spalding, known as the Father of the U. S. Pharmacopœia. His distinctive service, which has standardized the materia medica and safeguarded the public, should be memorialized by placing his statue in the New York Hall of Fame (Dr. Spalding lived for a number of years in New York), and also in the Capitol at Washington. This reference to a Hall of Fame suggests a memorial hall in the Headquarters Building and in a number of addresses and papers the writer has given expression to this thought.

The coming 70th birthday, on October 17th, of Prof. Dr. A. Tschirch will be celebrated in Berne, Switzerland. This distinguished pharmacognosist has given a life of service to this division of science and added largely to the knowledge of vegetable drugs, foods, etc. Ever and always active in his investigations he has given nearly every country co-workers, who train many students in this important branch; quite a number who have studied under the distinguished teacher carry on the work in this country, as members of faculties, or as heads of departments, in manufacturing and jobbing houses.

Doubtless we will hear further from Editor Clyde L. Eddy and the co-editors engaged in writing the "History of American Pharmacy." The proper conclusion has been reached by the decision to prepare a history which is an authentic record. We can rest assured that the work so well begun will be carried forward to completion, so that as time goes on others can add to the record. The important thing is to lay the foundation rightly.

The views held relative to M. Coué by physicians, pharmacists and others differ, however he sought to communicate cheerfulness and give comfort. He was a pharmacist for many years.

at Nancy, France; you are familiar with his work and it is a pleasure to show herewith a signed photograph and a specimen of his handwriting which will be placed in the Library of the Headquarters, and it is possible that other items will be added.

Each year Death takes from our membership those who have labored with us for pharmacy and the AMERICAN PHARMACEUTICAL ASSOCIATION. Among those of our number who have entered the "Unseen Temple" are the following: Philip Jacob Ackerman, George M. Andrews, John Winthrop Ballard, Dr. Daniel Base, Charles Calvin Bingham, Otto J. S. Boberg, Clark L. Brown, E. Percy Brown, John J. Buehler, Arthur Whitman Claflin, Frederick Colbert, John Coleman, Mrs. F. A. Collins, Dr. John Dargavel, Roscoe Doolittle, H. T. Eberle, F. W. Fincher, Harry Banks French, Walter M. Frohwein, William Hubbell Gano, Fabius Chapman Godbold, Lucien B. Hall, Louis Heister, George William Hoffman, John Howland, Henry Jorden, Ira J. Klingler, Joseph Amilcar Legendre, Philip Lehr, Albert Brown Lyons, Joseph Henry Maiden, William Elmer Mercer, John Nicholas Washington Otto, Henry M. Parchen, Frank Charles Pauley, Adolph A. Poehner, Benjamin Franklin Riter, Lucius Elmer Sayre, Frank Schachleiter, Leonard Ransom Wagener, Henry Milton Whelpley, William Huck Wickham, Clarence T. Wittkamp.

The "grim reaper" has taken from the best, from the young and the aged, of those who labored in the ranks and of those who directed the affairs of the ASSOCIATION. Most of the deceased were retail pharmacists, but among them are also teachers, wholesalers and manufacturers; all contributed service; we feel the loss and revere their memories. Records of most of the deceased will be found in the pages of the JOURNAL.

We must wait for the completion of the Headquarters before the articles for the museum and library can be systematized, properly filed and cataloged. One or more items of historical interest will be found in each issue of the JOURNAL, and all articles presented last year to this Section have been printed. The last issue of the *Headquarters Bulletin* was, to some extent, an historical issue.

The Historian desires to renew his request for coöperation and asks that all pharmacists—retail, wholesale, manufacturing, teaching, and in every other division, and in related lines—preserve matter they may have of historical value, whether this be apparatus, books, other publications, pictures, prints, or whatever it may be—wrap, box or store such material and mark for—AMERICAN PHARMACEUTICAL ASSOCIATION, together with names of contributors and other necessary information. There is much that seemingly has no value; there are articles, books, etc., that may become lost, manuscripts, letters, that may be destroyed, that will have interest for a succeeding generation; it is for them largely that we are working, and we should not permit destruction of that which has come to us. I feel assured that the devotion of pharmacists generally will persuade them willingly and gladly to help build up a pharmaceutical library and museum. There are some who will also accept the suggestion to make donations of this character when they provide for the disposition of other property.

A number of members are giving serious consideration to the donation of extensive libraries and forming a section in the Headquarters as a memorial; some contemplate giving coördinated historical material showing the development of certain manufacturing; others have in mind to tell the story of an industry, from the crude product to the completed or manufactured article.

Consideration is being given by a few to endowing these divisions so that the work contemplated may be carried on without hindrance and render a distinctive and valuable service to pharmacy, pharmacists and the drug activities in general. Give thought to the part you wish to have in the undertaking, assist in creating an interest which will not only establish the divisions of the Headquarters but also provide for their maintenance and greater service by endowments.

On motion duly seconded the Historian's report was accepted and referred for publication.

#### PAPERS.

The paper by L. F. Kebler on "Andrew Craigie, The First Apothecary General of the United States," was presented by the author. This paper is to be printed in a later issue of the JOURNAL and in commenting thereon the Historian referred to the Leadbeater Pharmacy in Alexandria which dates back to the 18th century. A description of it and sketches of the owners were printed in the August number of the magazine of the Daughters of the American Revolution.

He also referred to the building in which was located the apothecary shop of Brigadier General Mercer, prior to 1776, and in which General George Washington had a desk.

A motion was made by W. P. Porterfield, seconded by Hugo Kantrowitz, that the paper be accepted and take the usual course.—Carried.

Chairman L. K. Darbaker appointed the following as members of the Committee on Nominations: Hugo Kantrowitz, L. F. Kebler, R. A. Lehman.

Editor Clyde L. Eddy reported that progress was being made with the "History of American Pharmacy." The chapters were being completed and it was hoped that at the 75th annual meeting of the ASSOCIATION copy of the work would be completed.

On motion of Caswell A. Mayo, seconded by William P. Porterfield and a vote, it was ordered that the report be accepted.

A paper on "Activities of W. J. M. Gordon," by John Uri Lloyd, was read by title, owing to the absence of the author. Also the biography by Otto Raubenheimer—"Tschirch, Master of Pharmacognosy." This is printed in the October number of the JOURNAL OF THE A. P. H. A.

Joseph Jacobs read a paper on "Honor to a Physician Pharmacist"—Crawford W. Long, Georgia, "The Discoverer of Ether Anaesthesia."

The Historian reported that the Section had pictures of the unveiling of the statue in the Capitol.

A general motion was made and carried that all papers read should be received and take the usual course.

H. C. Christensen stated that he would prepare his paper at a later day on the "Influence of H. M. Whelpley in the Formation of the N. A. B. P."

A paper on "Pharmaceutical Events about 1776" by Otto Raubenheimer was read by title owing to the absence of the author.

Hugo Kantrowitz presented two papers in abstract by Wilhelm Bodemann on "The Chicago Veteran Druggists' Association" and "The Situation in Chicago."

James H. Beal read a paper by John Uri Lloyd on "Stop, Look and Listen." He stated that this paper presented one of the most remarkable prophecies that has ever come to his attention. In the paper the author foretold just what has come to pass in the later years of medicine—the coming in of irregularities in connection with cults and some religious methods of treating disease. He asked that all members read this paper at their leisure and study it carefully.

The Historian announced that President L. L. Walton had donated a memorial album to the ASSOCIATION which contained a congratulatory message to the President signed by every physician of Lycoming County. This album is to be placed in the historical archives.

Caswell A. Mayo moved and E. G. Eberle seconded the motion that President Walton be given a vote of thanks for the donation.—Carried.

Caswell A. Mayo moved and James H. Beal seconded a motion that the Historian be requested to prepare a suitable blank requesting the members to remember the AMERICAN PHARMACEUTICAL ASSOCIATION Library, explaining the fact that libraries are quite frequently disposed of with very little gain to the estates, because of small monetary value, but may represent a great loss to pharmacy.

After brief discussion the motion was voted on and carried.

James H. Beal stated that he had a copy of the first chemistry written by an American chemist, over one hundred years old, and in good condition. He also had other books of historical value, some presentation copies to Prof. William Procter, Jr., with handwriting of author. A number of these he expected to turn over to the ASSOCIATION whenever it is prepared to take care of them.

E. G. Eberle stated that he had a number of books and some manuscripts of pharmaceutical interest he intended to turn over to the ASSOCIATION.

L. F. Kebler said there was only one copy of Cutbush extant—it is at the Academy of Natural Sciences—he had read most of it. He had spoken to the librarian and it may be possible to secure the copy for the ASSOCIATION.

He also mentioned that he had met a granddaughter of Dr. Brown, the compiler of the Lititz Pharmacopœia. He learned from her that some of the references to her grandfather were incorrect. There is a picture of Dr. Brown extant, of which he may be able to secure a photograph. The granddaughter of Doctor Brown is the last of the family.

The Historian said that a copy of the *Military Pharmacopœia* by Dr. Brown is in the Heinitsh family at Lancaster. Dr. Kebler said that a copy is in the library of the Philadelphia College of Pharmacy and Science.

The first session of the Section on Historical Pharmacy was then adjourned.

#### SECOND SESSION.

The second session of the Section on Historical Pharmacy was called to order by Chairman L. K. Darbaker at 9:30 A.M., Friday, September 17th.

The Committee on Nominations reported the following nominees:

For *Chairman*, W. F. Sudro, North Dakota.

For *Secretary*, E. J. Kennedy, New York.

For *Delegate to the House of Delegates*, L. K. Darbaker, Pennsylvania.

On motion duly seconded the report was received and the nominees were elected.

Owing to the absence of the authors the following papers were read by title:

"Pharmacognostical Contributions from Humboldt's Travels through Equinoctial America," and "Apothecary M'Grady in 'Handy Andy,'" by Edward Kremers.

"History of Cascara Industry," by Thurman J. Starker.

"History of the Mint Industry," by C. C. Glover.

"History of Pharmacognosy," by William J. Stoneback.

"History of the Proprietary Association," by E. F. Kemp.

The Section on Historical Pharmacy was then adjourned.

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## 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 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 meetings 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.

### CHICAGO.

The 161st meeting of the Chicago Branch of the AMERICAN PHARMACEUTICAL ASSOCIATION was held Friday evening, November 12, 1926 at the School of Pharmacy Building, 701 S. Wood St. with President Kolb in the chair. About seventy-five members and friends were in attendance.

S. W. Morrison, member of the Faculty of the University of Illinois, School of Pharmacy, and pharmacist at the Illinois Research Hospital read a paper entitled "Should Pharmacists Manufacture Their Own Preparations?" The paper was based on the comparative cost to the pharmacist of galenicals when made in the store and when purchased from the manufacturer.

As applied to a selected list of about sixty U. S. P. and N. F. Elixirs, Liniments, Mixtures, Ointments, Solutions, Spirits, Syrups and Tinctures, the average cost of the ingredients in the preparations is about 50 per cent of the manufacturers' price. If the pharmacist can spare the small amount of room in his store or basement necessary for manufacturing galenicals and utilize unemployed portions of his own or his clerk's time, he can really save nearly all of this 50 per cent of the manufacturer's cost. Mr. Morrison's paper was accepted for publication in the JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

In the discussion of the paper, President Kolb heartily endorsed the idea and empha-