

Several standards of the present U. S. P. need revision and steps are being taken to adjust these as soon as possible when new standards will be issued. This applies particularly to Cod Liver Oil and Ergot.

Pharmacopœial Publicity.—Plans are being developed by a special Committee whereby it is hoped that monthly bulletins can be issued to the medical and pharmaceutical press covering the technique of medication and some therapeutic values of official preparations and drugs.

Death of Professor E. V. Howell.—It is regrettable to be compelled to introduce into the first report an announcement of the death of one of the members of the Committee. Dean E. V. Howell died from pneumonia on February 14th.

Within an appropriate time nominations were called for the filling of this vacancy, resulting in the election of Mr. Joseph Rosin. Mr. Rosin brings great strength to the chemical work of the revision through his experience as the assistant to Dr. Rosengarten during the revisions of the U. S. P. IX and U. S. P. X.

Conclusions.—Although only one year of revision has passed, the progress in many divisions is notable. This does not mean that the total time of revision is likely to be greatly reduced for the mechanical details of checking every test, the carrying forward of revised tests from Sub-Committee discussion, experimentation and approval, to the General Committee, to the public, then into manuscript, and laborious galley and still more exacting page proof and finally the printed book, requires time and labor. It is more important to have every text right when it does appear than to unduly speed the work.

Nevertheless, the present chairman pledges his best effort toward the prompt appearance of the new Pharmacopœia.

The report was on motion duly seconded, carried and received.

The report by R. L. Swain on Maryland Prescription Count was presented. (It is printed in the September JOURNAL, page 938.)

The report of the Committee on National Formulary was called for. Chairman E. N. Gathercoal summarized the report and spoke of the research work being done; he also referred to the surveys being made from the standpoint of useful suggestions for revision work and other values. The report of the Committee follows:

REPORT OF THE CHAIRMAN OF THE COMMITTEE ON NATIONAL FORMULARY.

BY E. N. GATHERCOAL.

To the Council of the American Pharmaceutical Association:

The Committee on National Formulary has maintained a high degree of activity since the Cleveland meeting of the Committee in 1930.

Bulletins and Sub-Committee Letters have been issued from the Chairman's Office to the extent of 300 pages during the year. These are distributed, in whole or in part, to about 66 persons including members, auxiliary members and coöperators on the revision work.

The Committee met for a two days' conference at Pocono Manor Inn, June 29 and 30, 1931, and accomplished much in the four sessions held on these two days. In addition to the sessions held by the entire Committee, each Sub-Committee held one or two meetings and markedly advanced the Sub-Committee work. All the fifteen members of the Committee were present and also Associate member Cook, Chairman Krantz, of the Committee on Unofficial Standards, and Secretary Kelly of the A. P. H. A.

The work of the Committee during the past year may be described along five general lines, each of which will be presented under an appropriate heading, as follows:

- Conduction of Research Investigations.
- The Establishment of Foundational Principles of Revision.
- The Preparation of Statistical Tabulations.
- Admissions into N. F. VI.
- The Study of Individual Monographs.

CONDUCTION OF RESEARCH INVESTIGATIONS.

The conduction of research investigations of important problems in connection with National Formulary preparations, and supported in part by grants from the N. F. Research Fund, is an outstanding feature of the work of the Committee during the past year.

Dr. Scoville early proposed a study of the scientific foundations upon which rest certain empirical practices in extractive operations. This study has been carried on at the University of Washington College of Pharmacy under the direction of Dr. Langenhan. It was suggested at the Committee Conference this year that Dr. Scoville should engage a suitable assistant and continue the work in his own laboratory during the coming year.

Dr. Fantus has proposed and is guiding a study of certain phases of ampul preparations, in anticipation of the admission of an increased number of ampuls to N. F. VI.

Dr. Langenhan is supervising an extensive study of the U. S. P. and N. F. Liquors. He, no doubt, will give similar consideration to other important groups of preparations under consideration by his Sub-Committees.

Dr. Jenkins is guiding a study of chemical tests and assays as applied to N. F. chemicals.

Mr. Becker, Professor Bachman and the auxiliary worker, Miss Laurine Jack at the University of Minnesota College of Pharmacy, have made important studies on the N. F. pills.

Dr. J. J. Durrett of the U. S. Food and Drug Administration has originated an extensive critical review of the titles and synonyms in Part I of the National Formulary. Dr. Army has applied these criticisms to a study of the N. F. Nomenclature.

Other members, including the Auxiliary Sub-Committees on Dental Preparations and on Veterinary Preparations have also been active.

THE ESTABLISHMENT OF PRINCIPLES OF REVISION.

The establishment of principles of revision is an important phase of the Committee work. Mention might be made of the following actions taken by the Committee during the past year.

(1) We have undertaken a revision and completion of the General Principles of Revision with the understanding that these will be published in full in the Preface of N. F. VI.

One important modification of General Principles No. 1 on Scope has been made, by which simple medicinal materials will be admitted to N. F. VI on the basis of extensive use, even if they are not employed in any National Formulary preparation.

(2) A complete set of General Notices adopted from the U. S. P. General Notices but adapted to the National Formulary will probably be included in full at the beginning of the text of N. F. VI. No extensive changes nor modifications of the General Notices of U. S. P. XI are contemplated.

(3) The very extensive, accurate and complete descriptions of General Tests, Processes and Apparatus as found in the back part of the U. S. Pharmacopœia will not be copied into N. F. VI, but reference to the U. S. P. text will be made in the N. F. monographs where desired. This action was taken not only to save space in the National Formulary and unnecessary duplication of printing, but particularly to avoid any possibility of differences or deviations in the official methods for these tests, reagents, processes, etc.

(4) The N. F. Sub-Committees dealing with Crude Drugs and with Chemicals have adopted a fairly uniform style of monograph, so that the monographs of Part II of N. F. VI will possess a very desirable degree of uniformity.

THE PREPARATION OF STATISTICAL TABULATIONS.

The preparation of statistical tabulations on the extent of use in the pharmacies of the United States of N. F. V preparations and of new preparations proposed for inclusion in N. F. VI, has been an important part of the Chairman's activities during the year past.

We have completed and published the survey on the extent of use of the 570 N. F. V galenicals. Reports were received from 76 hospital pharmacists, 213 prescription drug stores and 625 ordinary drug stores throughout the United States. Especial credit should be given to Editor Mayes and the *American Druggist* for the distribution of questionnaires among retail drug stores of the United States and the tabulation of the data received from 625 of them.

The reports indicated a "large," "medium," "small" or "no" use. The tabulated data included more than 400,000 items. The results were finally read in "percentage of use," and nearly all of the items so far admitted to N. F. VI are used in 20 per cent or more of the pharmacies of the United States. Based on an estimate of 60,000 such pharmacies, a preparation to be admitted to the National Formulary must be used in at least 12,000 pharmacies in the United States.

A similar survey on 437 unofficial preparations proposed for inclusion in N. F. VI is now in process. A preliminary report of this survey was presented at the 1931 conference of the Committee.

A *Prescription Count* was instituted more than a year ago in a suburb of Chicago. All of the prescriptions in the 12 drug stores of this suburb that were filled during the year 1929 were counted, both refills, new, regular and narcotic. The number of prescriptions filled during the year averaged about 2.75 per person in the suburb.

A similar count was made in Rockford, Ill., a city of nearly 100,000 population. Here the number averaged about 2.95 per person per year.

Then Dr. R. L. Swain of Baltimore undertook a similar count for the entire state of Maryland. He finds the average annual prescription fill for the 650 odd stores of Maryland to exceed 5000 prescriptions per store and for the city of Baltimore to be almost exactly 3.0 per person per year. However, in the whole State the average is but slightly above 2 per person per year.

Based on these figures the total prescriptions filled annually in the drug stores of the United States would approach 300,000,000.

Surveys of Prescription Ingredients with the number of occurrences of each ingredient per definite number of prescriptions have been made on a number of occasions at least as far back as the 1880's.

Such a survey, made by Hallberg and Snow in 1898 covered 117,000 prescriptions from 28 states. The compilation of the data was splendidly done, but unfortunately has never been published.

A similar survey of national character is recorded in the Charters' Report in 1925. This survey covered but 17,500 prescriptions but these were gathered from over the country and were read until practically no new items occurred in a block of 500 prescriptions.

Professor Cook, Chairman of the U. S. P. Revision Committee undertook a survey in 1929-1930 of those items only that had been deleted from U. S. P. VIII and U. S. P. IX. This survey represents 237,000 prescriptions from about 500 stores throughout the nation and covers about 400 items.

The results from each of these surveys have been studied and careful comparisons made. This information has been used in considering admission to the National Formulary. However, certain discrepancies brought out by these comparisons have led to a plan for yet another survey, even more extensive and comprehensive and, that should give a truer picture of the usage of medicines in prescriptions in the United States. Such a survey is now under way and is being financed jointly by the Board of Trustees of the U. S. Pharmacopœia and the Council of the AMERICAN PHARMACEUTICAL ASSOCIATION.

A *survey of the use of medicines in hospitals* should be made. Such a survey presents many difficulties, for in most hospitals no record is kept of the amount of medicines dispensed in the hospital. Some hospitals have dispensaries where regular prescription files are kept, others have files of "orders," but in most hospitals no record is kept of the medicine used by the nurses. However, it has been estimated that perhaps one-fourth of all the medicine ordered by physicians in the United States is dispensed in hospitals.

The amount and kind of *medicines dispensed by physicians*, also, is not known. Prof. Cook has made a study of the formulas in the catalogues or price lists of physician-supply houses and finds that about 85% of the items in these formulas are U. S. P. items.

Finally, no figures are available on the *use of medicines in "patent" medicines*. Certainly the amount used here must be very large.

A tabulation of the *imports of crude drugs, medicinal chemicals and medicines* might throw much light on the extent of use of certain items of medicine.

ADMISSIONS INTO N. F. VI.

The admissions into N. F. VI, as with the Pharmacopœia, require a vast amount of study. There are three sources of admission to National Formulary VI, *viz.*: the items of N. F. V, the deleted items from U. S. P. X, and new or unofficial items.

The Committee, early in its work, decided to base admissions on extent of use, and determined to find out, if possible, just how much each preparation was used by physician, pharmacist or layman before it was passed upon for admission to N. F. VI.

The titles in Part I of N. F. V have been considered at both of the annual conferences of the Committee and about 350 of them have been definitely admitted to N. F. VI. About 30 titles are still under consideration and about 200 are tentatively in the deleted group.

The items of Part II rather automatically follow those in Part I: if the preparation in Part I is admitted, the drug or chemical in Part II is also admitted. In this way, 130 of the 213 items in Part II are admitted and 10 are still under consideration.

About 40 preparations of U. S. P. X have been deleted by the U. S. P. Committee on Scope, and most of these, no doubt, will find their way into the N. F.

Several hundred new preparations have been proposed for admission to N. F. VI. These are being studied as to their extent of use and perhaps a considerable number will be admitted to N. F. VI. The Committee has already taken favorable action on the admission of ampuls in increased number and is considering adding more tablets. Several good elixirs and ointments have been proposed, as well as a wide range of other preparations.

When the deletions are definitely passed upon, the list will be extensively published and comments and criticisms will be invited.

THE STUDY OF INDIVIDUAL MONOGRAPHS.

The Sub-Committees have been giving much thought to the individual monographs, but no actual copy of a revised monograph has appeared during the year in any of the Sub-Committee Letters. However, according to the reports of the Sub-Committees made at the last Conference, several of the Sub-Committees are now prepared to issue the revised copy of a considerable number of monographs, and it is expected that these will appear in the Sub-Committee Letters within the next month or so.

E. N. GATHERCOAL, *Chairman.*

Referring to the Maryland Prescription Survey Mr. Swain said he would not read the statistical report, which, as a whole will probably take the usual course. He stated that the Survey was undertaken to stimulate pharmacists of the state in building up their prescription departments. It was, therefore, necessary to get statistics as nearly accurate as possible to assist them. The working conditions were fortunate, with the splendid coöperation on the part of the state pharmacy officials, a coöperation not available to surveys carried on in other states because, in Maryland, Dr. E. F. Kelly is a member of the Maryland State Board of Health, and he (Dr. Swain) is honored with the duties of enforcing the drug laws of the state. Naturally, it was not a very great burden when the assistance of state pharmacy officials could be enlisted in the work.

He stated that the Maryland population is mostly urban; the urban population of the whole of the United States at the last census comprised 56 per cent of the population, while in the state of Maryland 59 per cent of the population is classified as urban. As the urban population of Maryland compares so closely with the urban population of the country as a whole, it can reasonably be assumed that the figures obtained in the Maryland survey can be used as a basis for arriving at a fairly accurate national prescription count.

Continuing the reporter said that the Maryland Prescription Survey was carried out by the Maryland Pharmaceutical Association in conformity with the pharmacy laws of the state of Maryland and under the supervision of the Bureau of Pure Food and Drugs.

The first thought in mind was that carrying out a national survey would give our figures official recognition—a representative was sent to Washington and submitted the entire plan to the Census Bureau, at the same time asking for certain information in possession of the Bureau. The Bureau approved certain features of the plan, and recommended the modification of others, but refused to give all the information which we requested; therefore, the survey was begun as a state count only, with the aid of the proprietors of stores; the number of prescriptions filled were checked and then re-checked in order to prevent errors. The results of this survey indicate that a great many errors exist in the methods of keeping records and also of other information which pharmacists should have on hand. A great many of the stores kept no record of their prescription business at all; some stores kept fairly accurate records. Many of the owners had been operating their stores for years, and during all this time they had kept no record of their prescriptions, with the result, of course, that when asked for this information it was not available.

In the opinion of the reporter, with a little effort on the part of others, the keeping of records would be improved in such a manner that all matters regarding prescription practice may be instantly available. He contended that the matter of record-keeping is very important from every standpoint and no pharmacist can really be successful if his records are poorly kept. He reported an interesting event during the survey—"In a certain drug store which had a prescription business of \$18,000 a year and the gross prescription sales of which amounted to \$36,000, no records were kept. The owner, in fact, became indignant when he was told of the necessity of keeping accurate records, but he finally became so interested in the work of the survey that he insisted upon using his store as a laboratory in which to carry on the work.

Another feature, important for those who like statistics, and which also helped considerably in this work is that in the state of Maryland the city population practically is the same as that of the country, the city population being 804,000 against 826,000 for the rest of the state.

S. L. Hilton inquired whether the reason for the difference in the number of prescriptions compounded in the city of Baltimore as compared with the number compounded in the rural districts was not due to the fact that physicians in the rural districts supply the medicines to their patients. Mr. Swain replied that he was not certain about this and presented some figures from the survey. He said that it was possible to gather a great many facts which will be available. He was quite certain that there was less compounding by physicians in the cities than in the country districts.

C. P. Wimmer stated that a survey in New York for 1930 showed an increasing number of prescriptions; this increase seems to have dropped somewhat.

Mr. Swain stated that the public is becoming just as careful to-day in the selection of the pharmacist as in the selection of the physician and in his opinion the public would pass judgment according to their observation and express their preference by patronage and, in his opinion, this accounted, to a certain extent, for some stores doing a very large prescription business.

The next order of business was a reading of the report of the Committee on Unofficial Standards by J. C. Krantz, Jr. On motion duly seconded the report was accepted. The report follows:

REPORT OF THE COMMITTEE ON UNOFFICIAL STANDARDS.

Last year in the annual report of this committee Professor Gathercoal tendered his resignation as chairman to the Council of this ASSOCIATION. Under his administration the work of the committee on Unofficial Standards was carried on with wisdom and expedition. With regret the Council accepted the resignation of Professor Gathercoal and John C. Krantz, Jr., was elected chairman of this committee.

ORGANIZATION.

Prof. E. B. Fischer retained his position as chairman of the Sub-Committee on Crude Drugs of the general committee, and Dr. H. H. Schaefer was appointed chairman of the Sub-Committee on Chemicals to take the place of John C. Krantz, Jr. During the past year, the Council elected Dr. Arno Viehoever to the place of Mr. Eldred on the committee, and Dr. Adolf Ziefle was elected to take the place of Dr. H. H. Rusby. Each of these newly elected members are serving on the Sub-Committee on Crude Drugs.

The personnel of the committee and associate members is as follows:

Sub-Committee on Crude Drugs.—**Members.**—E. B. Fischer, *Chairman*, University of Minnesota, College of Pharmacy, Minneapolis, Minn.; E. N. Gathercoal, 701 S. Wood Street, Chicago, Ill.; O. A. Farwell, 271 Smith Ave., Detroit, Mich.; E. L. Newcomb, 51 Maiden Lane, New York, N. Y.; C. M. Sterling, 920 Indiana Ave., Lawrence, Kansas; Adolf Ziefle, Corvallis, Oregon; Arno Viehoever, 43rd and Kingsessing Ave., Philadelphia, Pa.; H. W. Youngken, Mass. College of Pharmacy, Boston, Mass.

Associate Members.—William Mansfield, P. O. Box 137, Delmar, New York; A. J. Schwarz, University of Tennessee College of Medicine, Memphis, Tennessee; Thomas G. Githens, M.D., Glenolden, Pennsylvania; H. H. Crosbie, 307 West Pratt Street, Baltimore, Md.; E. H. Wirth, % J. A. Dorjhan, 701 S. Wood St., Chicago, Ill.; B. V. Christensen, University of Florida, College of Pharmacy, Gainesville, Florida.

Sub-Committee on Chemicals.—**Members.**—H. H. Schaefer, *Chairman*, 115 W. 68th St., New York, N. Y.; J. A. Koch, 1431 Blvd. of the Allies, Pittsburgh, Pa.; E. V. Lynn, Bagley Hall,

University of Washington, Seattle, Wash.; Otto Raubenheimer, 1341 Fulton St., Brooklyn, N. Y.; John G. Roberts, 137 N. Rolling Road, Springfield, Pa.; E. S. Rose, Box 182, Iowa City, Iowa; W. F. Sudro, 1117 Thirteenth St., N., Fargo, North Dakota.

Associate Members.—L. E. Warren, F. D. I. Administration Department of Agriculture, Washington, D. C.; Nellie Wakeman, 356 Chemistry Building, Madison, Wis.; F. W. Nitardy, 23 Vine Street, Brooklyn, New York; E. H. Volwiler, Abbott Laboratories, North Chicago, Ill.; A. D. Nichols, 43rd and Kingsessing Ave., Philadelphia, Pa.

ACTIVITIES.

1. The committee offered its services to the National Formulary Committee to assist it in the preparation of monographs.

2. Five monographs were prepared by the Sub-Committee on chemicals and were published in the April number of the JOURNAL OF THE ASSOCIATION.

These chemicals are: Zinc Phosphide, Bismuth Subiodide, Hydrated Bismuth Oxide, Cerium Oxalate, Methanol.

3. The Sub-Committee on crude drugs has in the process of preparation several monographs which will be published in the coming year.

PLANS FOR FUTURE WORK.

The committee in planning its future work invites the suggestions from ASSOCIATION members interested in the establishment of standards. It is our purpose in the coming year to project our preparation of monographs and standards to some of the newer and more generally used unofficial drugs.

Respectfully submitted,

JOHN C. KRANTZ, JR., *Chairman.*

The report on the Pharmaceutical Recipe Book by Chairman J. Leon Lascoff, was read by C. P. Wimmer.

REPORT OF THE COMMITTEE ON RECIPE BOOK.

Your Chairman begs to submit the following report on the Recipe Book, for the year 1930-1931:

An outstanding activity in connection with the Recipe Book during the past year, was the printing and distributing of circulars advertising this publication. I submit herewith a summary of sales thus far. The definite effect which these pamphlets had in increasing sales is indicated in these figures.

Quarter Ending	
June 1, 1929.....	1036
Sept. 1, 1929.....	613
Dec. 1, 1929.....	249
Mar. 1, 1930.....	218
June 1, 1930.....	90
Sept. 1, 1930.....	205
Dec. 1, 1930.....	178
Mar. 1, 1931.....	527
June 1, 1931.....	350
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Total sold to June 1, 1931	3466
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Stock on hand as of June 1, 1931 was	1445

Five thousand of the pamphlets were distributed through Secretary Kelly's office. Your Chairman personally distributed five hundred pamphlets to members of the New York State Pharmaceutical Association. It is significant to note the marked advance in sales for the quarter ending March 1, 1931 and continuing to the June 1, 1931 quarter, as compared with the sales of previous quarters. The pamphlets were sent out during the latter part of February 1931.

It is gratifying to note the many letters from pharmacists, and from physicians as well, expressing satisfaction with the Recipe Book. Space does not permit of my quoting all of them, Permit me to mention a few. One pharmacist writes, "This is a fine book which paid for itself during the first week." One particularly interesting letter came from a Dr. Brundage, a physician, in which he states that he "is much impressed by the character, scope and practical and carefully tested compilation of valuable formulas comprising the A. P. H. A. Recipe Book." The following is quoted from a letter sent to Secretary Kelly by the J. B. Lippincott Company, publishers of our book: "You are to be congratulated on the splendid booklet prepared on the Recipe Book. We are continually circularizing the 60,000 druggists in this country and can use a large quantity of the booklet to good advantage. Suppose you send us 15,000 of this circular and we will use them during April and May."

We are very grateful for suggestions which have come in from time to time with reference to formulas and other features which might be added to the book. One or two individuals wrote in asking the reason for omitting mention of therapeutic action of the various preparations. From the tone of their letters they evidently had in mind the utilizing of one or another Recipe Book formula to make up preparations of their own. Your Chairman wrote to these parties to the effect that the Recipe Book is intended as an aid to physicians in their prescription writing and to pharmacists as a convenient reference in filling physicians' orders. Furthermore any information as to therapeutics would invite counter-prescribing, which is decidedly contrary to the ethics of this ASSOCIATION.

Your Chairman has already initiated the work of revising the First Edition. In this connection, the following letter was sent to each member of the Committee requesting general suggestions for additions, deletions, corrections, etc.:

DEAR :

The latest figures which I have on hand listing sales of the Recipe Book are those up to and including the quarter ending March 1, 1931. Up to this time 3116 copies were sold, leaving a stock on hand of 1795 copies. Of course, the June 1 figures will show additional sales.

It is significant to note that for the quarter ending March 1, a far greater number was sold than during any other period with the exception of the first quarter, when sales started. The reason for the marked increase for the March, 1931 quarter was undoubtedly a result of the distribution of the pamphlets advertising the Recipe Book. I enclose herewith a copy of same.

From these facts you will no doubt conclude that it is time for our Committee to start work on revision of the First Edition.

Will you, therefore, please submit to me whatever criticisms, changes, and new formulas you wish to have considered by the Committee at large for acceptance in the Second Edition of the Recipe Book? I will experiment on same and forward them to each member for approval.

At this time I list below a number of formulas which have come to me from various sources and which are worthy of consideration. Additional ones will be submitted from time to time.

POISON IVY LOTION (DR. SMITH).

Zinc Oxide	3.0 Gm.
Magma Magnesiae	3.0 Gm.
Glycerine Lubricant, R. B. No. 1	
	<i>ad</i> 30.0 Gm.

RUGGLES TINCTURE.

Tincture Iodine	6.0
Spirit of Camphor	25.0

SPIRITUS ACIDI FORMICI (FORMERLY N. F. IV).

(SPIRITUS FORMICARUM, SPIRIT OF ANTS.)

Formic Acid	40.0 cc.
Distilled Water	225.0 cc.
Alcohol <i>q.s.ad</i>	1000.0 cc.

The following formulas are taken from a collection published by me in the "Questions and Answers" column of the *New York Journal of Pharmacy*, of the Columbia University College of Pharmacy. These are formulas which have been requested of me by pharmacists over the phone, and which are not generally available.

PUSEY'S CALAMINE LINIMENT.

Powdered Tragacanth	4.0 Gm.
Phenol	
Glycerin	<i>aa</i> 0.6 cc.
Olive Oil	120.0 cc.
Distilled Water <i>q.s.</i> to	480.0 cc.
Oil of Bergamot <i>q.s.</i> to perfume	

SYRUP OF CHLORAL (B. P.).

Chloral Hydrate	51.0 Gm.
Distilled Water	60.0 cc.
Syrup <i>q.s. ad</i>	300.0 cc.

MUCILAGE OF SALEP.

Powdered Salep 1 part

Agitate well with 10 parts of cold water; pour on this 90 parts boiling water, and stir till cold.

SIPPY POWDERS.

Powder A:	
Heavy Magnesium Oxide	
Sodium Bicarbonate of each	0.6 Gm.
Powder B:	
Calcium Carbonate	0.6 Gm.
Sodium Bicarbonate	2.0 Gm.

(The above powders are usually taken alternately.)

VINUM FERRI (WINE OF IRON CITRATE, N. F. IV).

Iron and Ammonium Citrate	40.0 Gm.
Tincture of Sweet Orange Peel	60.0 cc.
Syrup	100.0 cc.
Sherry Wine <i>q.s.ad</i>	1000.0 cc.

LIQUOR MORPHINÆ HYDROCHLORIDI (B. P.).

Morphine Hydrochloride	1.17 Gm.
Diluted Hydrochloric Acid	2.4 cc.
Alcohol	30.0 cc.
Distilled Water <i>q.s.ad</i>	120.0 cc.

(11 minims contain $\frac{1}{10}$ gr. morphine hydrochloride.)

ELIXIR TURNERA (N. F. III).

Fluidextract Turnera	150.0 cc.
Purified Talc	15.0 Gm.
Alcohol	250.0 cc.
Glycerin	65.0 cc.
Aromatic Elixir	535.0 cc.

Allow to stand 24 hours, with occasional shaking if convenient, and filter.

LIQUOR ROSÆ DULCIS.

Oil Rose	0.5 cc.
Carmine	8.0 Gm.
Potash Solution	16.0 Gm.
Glycerin	30.0 cc.
Alcohol	16.0 cc.
Syrup <i>q.s.ad</i>	300.0 cc.

LOOMIS DIARRHŒA MIXTURE (N. F. III).

Tincture Opium	16.5 cc.
Tincture Rhubarb	8.25 cc.
Comp. Tr. Catechu	50.0 cc.
Oil of Sassafras	1.25 cc.
Comp. Tr. Lavender <i>q.s.</i> to	125.0 cc.

I am also including the following formulas presented in my report of last year:

DORANTI'S SOLUTION.

Iodine	1 part
Guaiacol	2 parts
Creosote	5 parts
Glycerin	100 parts

CALENDULA OINTMENT.

Fluidextract Calendula	10.0
Simple Ointment <i>ad</i>	100.0

MENTHOL LINIMENT.

Menthol	3 parts
Chloroform	4 parts
Olive Oil <i>ad</i>	16 parts

CALAMINE OIL LOTION.

Calamine	12.5 Gm.
Zinc Oxide	12.5 Gm.
Lime Water	50.0 cc.
Olive Oil	16.6 cc.
Rose Water <i>ad</i>	100.0 cc.

CREOSOTE AND CARBOLIC INHALANT.

Creosote	
Carbolic Acid, of each	6.3 cc
Tincture Iodine	12.5 cc.
Alcohol <i>ad</i>	100.0 cc.

AFTER-SHAVING LOTION.

Alum	0.18 Gm.
Glycerin	11.0 cc.
Witch Hazel	16.0 cc.
Perfumed Spirit (Spiritus Odoratus) <i>ad</i>	100.0 cc.

AROMATIC SYRUP OF CASCARA.

Fluid extract of Cascara Sagrada	8 parts
Tincture of Orange	2 parts

Alcohol	1 part	Lanolin	45.0 Gm.
Cinnamon Water	3 parts	White Petrolatum <i>q.s.ad</i>	100.0 Gm.
Syrup	6 parts	<i>IODIZED PHENOL</i> (PIGMENTUM PHENOL IODATI).	
<i>ATROPINE OINTMENT.</i>			
Atropine Alkaloid	2.0 Gm.	Iodine	10.0 Gm.
Olive Oil	8.0 cc.	Liquefied Phenol <i>ad</i>	100.0 Gm.

As stated in my Committee report for the year 1929-1930, I would suggest the inclusion of a Table of Solubilities and a Dose Table, together with Antidotes for Poisons. The Table of Solubilities should include not only the chemicals or drugs official in the U. S. P. but also those synthetic chemicals which are in daily use in every pharmacy. A similar table prepared by your Chairman, was published in the *American Druggist* and in the "American Druggist Green Book."

There are also various typographical errors which were called to my attention, and which I shall submit later.

As soon as the suggestions come in from the Committee members, an organized, methodical system of revision will be instituted. Comments relative to the next edition are of course invited from all members of the ASSOCIATION and from anyone interested. These will be gratefully accepted and given the proper consideration.

I wish to thank Secretary Kelly and Editor Eberle for their sincere and painstaking work in connection with the printing and distributing of the pamphlets mentioned previously in this report. This advertising medium has paid for itself many times over, by their marked effect in increasing sales of the Recipe Book.

I also wish to thank once more all of the members of the A. PH. A. who have shown their interest and coöperation in our work in behalf of the Recipe Book.

Respectfully submitted,

J. LEON LASCOFF, *Chairman.*

The report of the Committee on Glass Standardization was read by Chairman H. V. Army. The report will be printed in this and the succeeding number of the JOURNAL.

The report of the Committee on Ebert prize was made by Chairman Loyd E. Harris. It follows:

REPORT OF COMMITTEE ON EBERT PRIZE.

Mr. Chairman, Members of the Section:

After careful consideration of the many papers eligible for the award, your committee has selected Dr. H. W. Younken as the winner of the Ebert prize. This selection was based on his outstanding papers presented on "The Pharmacognosy, Chemistry and Pharmacology of *Viburnum*."

Respectfully submitted,

F. J. BACON

MARVIN R. THOMPSON

LOYD E. HARRIS, *Chairman.*

Dr. Youngken expressed his appreciation of the award.

On motion duly seconded and carried the session was adjourned.

SECOND SESSION.

The Second Session of the Scientific Section was called to order on Thursday, July 31st, at 2:00 P.M., by Chairman E. E. Swanson.

The report of the Committee on Review of Papers was called for.

REPORT COMMITTEE ON REVIEW OF PAPERS.

Chairman Jenkins stated that this Committee was for the purpose of reviewing papers as to whether they should be published or not and that as no papers have been submitted with that end in view it was recommended that the Committee be discontinued.

On motion duly seconded the report of the Committee was accepted and carried by vote. The reading of papers was continued.

"The Standardization and Stabilization of Ergot Preparations. VIII. The Study of Methods of Assaying Ergot Preparations and the Hydrogen-Ion Concentration Factor," by E. E. Swanson, C. E. Powell and A. N. Stevens.

"Pitocin and Pitressin Stability," by L. W. Rowe.

"Influence of the Alkaloidal Purification Procedure in the Assay of Alkaloidal Drugs," by George E. Éwe.

"Influence of Vegetation and Development of Plant on the Alkaloidal Content of *Hyoscyamus Niger* L.," by Zdenek F. Klan, Prague.

"The Phytochemistry of *Podophyllum Peltatum*," by Arno Viehover and Elsie M. Klenke.

"Transparent Life Studies;" "Effect of Strychnine on *Daphnia*," by Arno Viehover and Anna Schwenk Mikurija.

"The Alkaloids of *Argemone Alba Lestib*," by P. A. Foote.

"On the Occurrence of Azulene in *Achillea Millefolium*," by Katherine Graham and Edward Kremers.

"A Revision of Oxygen Derivatives of Cymene," by S. Chechik, W. W. F. Enz and Edward Kremers.

"A Chemical Study of *Corydalis Aurea*, Wild," by H. F. Eppson and Edward Kremers.

"Fluidextract of Ergot," by L. W. Rowe and W. L. Scoville.

"Detection of Toxins Which May Be Formed from *Cinchona* Alkaloids," by S. J. Dean, J. W. Miller and H. C. Biddle.

"Rape Oil as an Adulterant of Olive Oil," by C. W. Ballard.

"Quality of Spearmint Oil Produced in Florida," by B. V. Christensen and L. D. Hiner

"Incompatibilities of Important Newer Chemicals," by Charles F. Lanwermyer.

"The Assay of Pepsin," by Glenn L. Jenkins and H. L. Greenberg.

"A Study of the Germicidal Activity of Aromatic Sulphides," by E. Moness, W. Braker and W. G. Christiansen.

"A Comprehensive Study of the Preparation of Colloidal Silver Iodide and a Report of Its Bactericidal and Bacteriostatic Value," by W. A. Lott and W. G. Christiansen.

"A Note on the Titration of Boric Acid," by John C. Krantz, Jr., and C. Jelleff Carr.

"The Stabilization of Solution of Arsenous and Mercuric Iodide, U. S. P. X," by William J. Husa.

"The Analysis of Arsenous Iodide," by William J. Husa.

"The Relation of Hydrogen-Ion Concentration to Potency in Tincture of *Digitalis*," by John C. Krantz, Jr., and James C. Munch.

"The Effect of Various Iodides upon the Stability of Hydriodic Acid," by W. J. Husa and P. S. Shattuck.

"A Note on the Assay of Tincture Ferric Chloride," by Margarethe Oakley and John C. Krantz, Jr.

"Tincture and Fluidextract of *Digitalis*," by L. W. Rowe and W. L. Scoville.

"A Note on the Assay of Spirit of Ethyl Nitrite," by W. F. Reindollar and John C. Krantz, Jr.

"Fluidextract of Ergot," by L. W. Rowe and W. L. Scoville.

"Alkaloidal Reagent. I. Preparation and Method of Use," by James C. Munch, Frank Crossley and Walter H. Hartung.

"Alkaloidal Reagents. II. Systematic Study of the Reaction of Phenols and Amino-Phenols," by James C. Munch, Frank Crossley and Walter H. Hartung.

"Studies on the Determination of Camphor in Camphor Liniment," Charles F. Poe, Goldner Lipsey and David W. O'Day.

"Effect of Ordinary Light and Ultra Light on Extracts of Essential Oils in (1) Alcohol, (2) Fixed Oils," by Charles F. Poe, E. C. Jones and Ford Millikin.

"A Proposed Method for Determination of Camphor in Spirit of Camphor," by Charles F. Poe and Elmer Plein.

"Resin of *Ipomea*," by L. E. Warren.

"The Hydrogen-Ion Concentration of the Infusion of *Digitalis*," by John C. Krantz, Jr.

"A Physical Chemical Study of Solution of Magnesium Citrate," Margarethe Oakley and John C. Krantz, Jr.

The report of the Committee on the Chairman's Address was read by Chairman William J. Husa, it follows:

REPORT OF THE COMMITTEE ON CHAIRMAN'S ADDRESS, SCIENTIFIC SECTION.

Your Committee has carefully considered the excellent address of the Chairman.

We approve suggestions one and three, that an auxiliary committee be appointed to assist the Editor of the JOURNAL OF THE A. PH. A., in the selection and criticism of papers offered for publication in the five subdivisions of (a) chemistry, (b) bacteriology, (c) pharmacognosy and botany, (d) pharmacology and bioassay and (e) pharmacy.

We also approve suggestion two, that the auxiliary committee be selected from educational institutions and that the committee shall be made up of individuals who are considered as authorities in their respective fields.

We likewise approve the fourth and final suggestion that the names of the members of the auxiliary committee with their respective subdivision be published in a prominent part of each issue of the JOURNAL. Your Committee recommends that the suggestions be adopted by the Section and referred to the House of Delegates.

Respectfully submitted,

WILLIAM J. HUSA, *Chairman*
MARVIN R. THOMPSON
RALPH E. TERRY.

There was some discussion on the matter of the selection of the Auxiliary Committee. Chairman Swanson thought the committee should be composed of members connected with educational institutions; others differed. L. E. Swanson thought no discrimination should be made, and the editor select the reviewer he believes best qualified. He thought the name of the reviewer should be omitted. This was put in the form of a motion and carried. (According to the reporter—it was to be placed before the House of Delegates.) The report of the Scientific Section as placed before the House of Delegates reads:

"To the House of Delegates:

The Scientific Section held two sessions on Wednesday and Friday afternoon, respectively, and a Joint Session with the Section on Practical Pharmacy and Dispensing on Thursday evening. Seventy-one papers were listed on the printed program for presentation at the two sessions and a total of 38 were actually read, the remainder being given by titles and referred for publication.

New officers elected for the coming year are as follows:

Chairman, L. E. Warren, Washington, D. C.
First Vice-Chairman, W. J. Husa, Gainesville, Fla.
Second Vice-Chairman, A. R. Bliss, Jr., Memphis, Tenn.
Secretary, L. W. Rowe, Detroit, Mich.
Delegate to House of Delegates, E. E. Swanson, Indianapolis.

Respectfully submitted,

L. W. ROWE, *Secretary.*"

(See September JOURNAL, page 993.)

The report of the Committee on Nominations was read by Chairman Bibbins, reporting the Nomination of L. E. Warren of Washington as *Chairman*, Wm. J. Husa, of Gainesville, Fla., *Vice-Chairman*, and L. W. Rowe was renominated for *Secretary*. The Committee at the same time commended his services. On motion duly made and seconded the nominees were elected.

Chairman Swanson expresses his thanks for the coöperation he had received and installed the *Chairman-elect*, the *Vice-Chairman* and the *Secretary*. Chairman Warren thanked the members for the honor of his election.

On motion duly made and seconded the session was adjourned.

THE SECTION ON EDUCATION AND LEGISLATION.

The First Session of the Section on Education and Legislation was called to order by Vice-Chairman Rudolph Raabe, Wednesday, July 29th, at 2:30 P.M. Chairman B. V. Christensen took the chair. He announced the appointment of the Committee on Nominations, as follows: *Chairman*, A. B. Lemon, C. W. Ballard, R. A. Lyman. Chairman Christensen stated that the Secretary had sent in no report and that the work during the year had been done by him with the assistance of the vice-chairman, Rudolph Raabe. He asked Mr. Raabe to take the chair while he read the annual address. This follows:

ADDRESS OF THE CHAIRMAN OF THE SECTION ON EDUCATION AND LEGISLATION.

A CENTURY OF PROGRESS IN PHARMACEUTICAL EDUCATION.*

BY B. V. CHRISTENSEN.¹

The progress in pharmaceutical education and the raising of the standards of pharmaceutical practice have been the leading causes in the development of pharmacy to the status as it exists to-day. The time has long since past when anyone, whether he had training or not, could open and operate a drug store without leave or license.

A century ago it was the custom of physicians in this country not only to compound and dispense but in many cases to manufacture as well. In those days the drug stores were patronized by physicians largely as sources of supply for the crude drugs required for manufacturing. In the early days of the past century in some of the larger cities of the United States were found a few trained apothecaries who had emigrated from the Old World where means for pharmaceutical education had been provided. The better class of physicians were glad to turn to such men for assistance and in turn gave them every possible encouragement. It is to the foundation laid by such influences that pharmaceutical education in this country owes its origin and advancement.

INDEPENDENT COLLEGES.

The first attempts to provide education for pharmacists in this country were made by corporations of local druggists called colleges, probably due to the influence of the trained apothecaries from Europe. These colleges were not only organized for the improvement of their calling but for mutual protection as well. This is well illustrated in the case of the first college, namely, Philadelphia College of Pharmacy, organized in 1821. This was evidently stimulated by an attempt on the part of the medical faculty of the University of Pennsylvania to regulate the education and practice of pharmacy in Philadelphia, which resulted in a counter movement by the local druggists and the organization of the Philadelphia College of Pharmacy (1). Similar colleges were organized in other large cities such as Massachusetts College of Pharmacy in Boston, 1823; College of Pharmacy of the City of New York, 1829; Maryland College of Pharmacy, Baltimore, 1841; Cincinnati College of Pharmacy, 1850; Chicago College of Pharmacy, 1859 and St. Louis College of Pharmacy, 1864.

These colleges were what might be called evening or vocational schools, *i. e.*, instruction consisted of evening lectures given by practicing physicians and pharmacists and was intended to supplement that given to apprentices in the drug stores. Libraries were built up, museums established and journals, such as the *American Journal of Pharmacy*, 1829, were published as a part of the work of these colleges.

These colleges were primarily responsible for the organization of the AMERICAN PHARMACEUTICAL ASSOCIATION. This means, of course, that the better class of druggists was responsible. In August 1851, the New York College of Pharmacy invited the other colleges to send delegates to a convention to meet October 15th to consider means for securing legal control over the importation of European drugs. After attending to the matters for which this convention was called, resolutions were adopted recommending that a convention be called to meet in Philadelphia in October 1852, for the purpose of organizing a national association of druggists. This was done and hence, the AMERICAN PHARMACEUTICAL ASSOCIATION.

* Miami meeting, A. Ph. A., 1931.

¹ Professor of Pharmacognosy and Pharmacology, University of Florida.