

THE EIGHTY-FIFTH ANNUAL MEETING OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, NEW YORK CITY, AUGUST 16-21, 1937

THE GENERAL SESSIONS

ABSTRACT OF THE PROCEEDINGS.

The General Sessions were held in the Hotel Pennsylvania, New York City, on Tuesday evening, August 17, Thursday forenoon, August 19, and on Saturday forenoon, August 21, 1937.

FIRST GENERAL SESSION.

President George Denton Beal called the session to order at nine o'clock, using the gavel presented to the ASSOCIATION by Joseph Jacobs and made of wood taken from the home of Crawford W. Long, and invited the former presidents of the ASSOCIATION to seats on the platform. In order of seniority they were: James H. Beal, E. G. Eberle, W. B. Day, C. Herbert Packard, S. L. Hilton, J. A. Koch, H. V. Arny, C. W. Holton, C. W. Johnson, H. C. Christensen, W. D. Adams, R. L. Swain, Robert P. Fischelis and P. H. Costello.

Mr. Robert R. Gerstner was recognized and on behalf of President George Gottesman who was prevented from attending by illness, extended the greetings of the five thousand members of the New York Pharmaceutical Council and their best wishes for a pleasant and profitable meeting, with assurances of any assistance that the Council could render.

President Beal requested Mr. Gerstner to extend the thanks of the ASSOCIATION to the Council for their generous hospitality and recalled the close ties the ASSOCIATION has with the City of New York in which was held in 1851 the meeting that led to the organization of the ASSOCIATION in 1852.

The ASSOCIATION was honored by the presence of several distinguished visitors from abroad. They were introduced and briefly extended greetings. Dr. George Urdang of Germany, Honorary Member of the ASSOCIATION; Dr. K. Fernstein, representing the Swiss Pharmaceutical Association; Dr. R. B. J. Stanbury, Secretary of the Canadian Pharmaceutical Association; Dr. F. A. Jacobs, Secretary of the Toronto Retail Druggists Association.

President Beal read a letter of welcome to the ASSOCIATION from Mayor F. H. LaGuardia of the City of New York and expressed the thanks of the ASSOCIATION to his Honor.

As there were no communications to be presented, Chairman Robert C. Wilson, of the House of Delegates, was recognized to explain that since the House had not as yet been in session, it had no report to submit. Chairman Wilson urged all members of the ASSOCIATION whether or not they were official delegates, to attend the three sessions of the House during which many matters of importance to pharmacy are to be considered.

Vice-President J. Leon Lascoff was called to the chair and President Beal read the following address:

"Ladies and Gentlemen of the American Pharmaceutical Association:

At each meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION it is the duty and privilege of its President to submit an address which, in this instance, will present certain observations on the state of the profession and the condition of the ASSOCIATION. At the time of my installation it was stated that, although my personal knowledge of the ASSOCIATION extended back into my very early years, most of my active life had been devoted to chemistry. However, I have maintained my membership in the ASSOCIATION and have attended these annual meetings regularly, and it may be of value to have the observations of one who, loving the profession and the ASSOCIATION, can look at them more objectively than those who are actively engaged in pharmacy.

THE PROFESSION.

To-day we find pharmacy in a well-advanced degree of recovery from the depression, and engaged in consolidating its position to better withstand future difficulties. This audience and those who will study this address, are as fully acquainted as I am with the various steps, the suc-

cesses and the failures, that have led to the present stronger position of the profession, and with the advantages and difficulties that may be expected to influence our future development. There is, therefore, no reason why I should attempt to review or evaluate them. On the other hand, because of my experience and deep interest in education and research, I am taking the liberty to submit a few observations about their place in and their influence on pharmaceutical progress.

EDUCATION.

The American colleges of pharmacy have exercised a great influence on the profession. Forty-four states and the District of Columbia now require graduation from an approved college of pharmacy as a prerequisite to registration as a pharmacist. The relation of these institutions to future progress is tremendously strengthened thereby and, in this larger opportunity, lies a greater responsibility for what pharmacy will become. The colleges can exercise this influence particularly through the number and the type of students accepted, the character and scope of education and training given, the type of teacher developed, and in the stimulation of research in its broadest meaning.

In spite of the extent of prerequisite legislation, attendance at the colleges of pharmacy has not increased as expected. Some think that through a shortness of supply the salaries of pharmacists may increase and possibly the number of pharmacies decrease, reducing the degree of competition in the profession. This view does not seem quite sound. There is, first of all, a certain number of pharmacists required each year to take care of the normal replacements. These are figures that can be determined for the several states and will at least show the extent to which the colleges are satisfying a natural demand.



GEORGE D. BEAL.

Then we have a country of expanding population. The pharmacist becomes an essential part of the community because of the nature of his services. Modern transportation has greatly extended the boundaries of residential areas, increasing the importance of the neighborhood location. Thus an increase in population means a further increase in the demand for pharmacists.

Another condition is a present uneven distribution of students in pharmacy. There are schools in large centers of population that more than supply the demand of their district, and others in less densely populated states that cannot supply the normal replacement requirements. Not all persons of city birth and

training can orient themselves in agricultural communities, nor is the contrary move always successful. It has been contended for many years that the pharmacist is one man especially who must understand his community. This suggests the thought that one of the qualities we should look for and encourage in prospective students is adaptability to environment in order that they may profitably follow the demands for service.

There is needed a continuous and properly distributed supply of entering pharmacists. Prerequisite legislation was achieved over great opposition, particularly from those who doubted the need of so much education as a prerequisite to ordinary pharmaceutical practice. If now it can be shown by those objectors that the heightened standards prevent the procurement of needed help, we can expect difficulty in maintaining present standards for registration.

I believe that we should do more to publicize the professional values of pharmacy in order to attract students of the right type. A part of this should be without reference to opportunity, merely an added emphasis on the dignity of the profession. Some ought to be directed to pharmacists, for there are those whose own self-respect is in need of repair. Part must be directed at the public that has difficulty in distinguishing between a professional pharmacy and a racket store. Some attempt should be made to educate professional humorists who fancy a drug store as a combination soda grill and canned goods emporium.

Some of the schools of pharmacy have lately adopted a successful practice of the agricultural schools. Extension courses in agriculture carried into the state, and short courses given at the universities during the slack seasons on the farm, have done much to cement the friendship between the farmer and the college. They acquaint the farmer with the latest theories and developments in agriculture, and make the farmer in turn a strong and loyal supporter of the college. I have had the privilege, during a twelve-month period, of attending at least three pharmaceutical conferences sponsored by different colleges, and have observed the keen interest of those who attend. The time spent in such extension work will be well justified by the professional stimulation carried to those who attend.

The colleges have done well in their transition from the shorter to the four-year curriculums. I know that there has been a temptation to use bellows, but in most part it has been successfully resisted. The four-year curriculum offers several opportunities never before presented in pharmaceutical education. First has been the chance to develop the subject matter of pharmacy in a systematic and deliberative manner, rather than to force-feed it in the style of the cram course. Then it has been possible to give proper attention to fundamental subjects that are prerequisite to the study of pharmacy, avoiding the emasculation that two- or three-year short-week courses required.

Time is now available for non-technical courses that add to the breadth and culture of the pharmacist's education, increasing his fitness to take his place beside young men entering other professions from college. Among these are the very pertinent courses in pharmaceutical economics. Some faculties have made a great success of such courses, with other added branches of business administration. Apart from the value of increased intellectual attainment, one cannot but believe in the value of subjects that make for better adaptation to the changing life of to-day.

It is not enough to attract students to pharmacy. There must be a consistent effort to draw in those of superior intellectual potentiality. If it is true, as claimed by some who have examined the high school records of incoming students, that the candidates do not represent the upper fractions of their classes, then drastic steps should be taken to get more of the ranking students, unless we wish pharmacy to become typed as a "low-grade" profession. Let me emphasize again that the only door now opening into the profession is that which admits to the college.

Beyond this threshold are the men and women who should provide the inspiration for the future pharmacist. Is every college doing the best that its income affords in the way of faculty? Particularly, is every faculty making an honest effort to liberalize itself and taking heed of educational experimentation elsewhere? As I think of some of these faculties, there comes to mind a wish that I believe is credited to Napoleon, that he might know what forces were on the other side of the hill. Just as the military flyer now gives to his general the groundwork for a plan of battle, so does the average faculty in other professions keep itself informed by bringing into its midst scholars from other colleges.

Faculties that have too constantly inbred eventually stand out by their lack of productivity, both of inspired students and of scholarly research. The scholastic outlook in pharmacy would probably be bettered if more opportunities were afforded for an educational intermarriage. There are certain faculties of which it is said that the appointment of an assistant from the senior class almost assures him retiring rank as full professor, if not an acting deanship.

Why not go over the mountains for a young instructor? Why not an exchange of professorships, at least one a year in a faculty to develop some new ideas in the teaching of pharmacy? Sectionalism and provincialism in this country are being wiped out by the automobile, and the Mason-Dixon line is no longer our greatest political barrier. Provincialism in pharmacy is just as stultifying as in politics or business.

Each faculty must strive to maintain a proper balance between professional, economic and cultural subjects. In perfecting this balance, it is equally important to include in the faculty circle some who have achieved professional success outside. Post-graduate experience in commercial or manufacturing pharmacy, or in pharmaceutical research, enables a teacher to remain alert to the needs which it is the policy of the college to serve.

THE COLLEGES AND RESEARCH.

It is hardly necessary to list arguments for the promotion of research in our colleges. However, one reason should particularly commend itself. Research is the best stimulus to inspired

teaching. It is one activity that cannot be followed without keeping completely abreast of current developments. The teacher who does not vary his teaching in the light of new knowledge never becomes more than a human parrot, and inspires his students to the same extent.

The maintenance of pharmacy as a profession requires that advancements in pharmaceutical knowledge be largely the product of its members. Otherwise it becomes an adjunct of other sciences and professions, is finally taken over by them and loses its identity altogether. Unless the training of research specialists is maintained as an important activity of the colleges, those in need of such specialists must turn elsewhere.

There is some question regarding the wisdom of making research a part of the undergraduate curriculum. Original research requires a certain maturity of thought, but an aptitude for research cannot be uncovered unless a student is put to the test. Occasionally a meritorious piece of work is performed, but the chief aim is the instruction of the student in the method of solving an original problem. Even the compilation of a bibliography may be a stimulus, while the study of variations in National Formulary and Recipe Book formulas and procedures may make definite contributions to pharmaceutical practice. Research in pharmaceutical economics requires the collection of much data which, under proper supervision, may be carried out as undergraduate thesis assignments. This is equally true of that important economic study, the prescription ingredient survey. Undergraduate research is more likely to fail from inadequate faculty direction than from student inability.

From the ranks of these students come those who are to proceed with graduate study. It is to these that we should look for the future maintenance of our faculties and our industrial research laboratories. Graduate study, following four years in college, is an expense that many students are unable to afford without assistance. But since its benefits accrue to the whole profession, it is properly a charge against the profession. There is no valid reason why pharmacy should be one of the few professional courses that receive little or no support in the way of graduate scholarships and fellowships, and why so few pharmaceutical teachers of suitable qualifications are included in graduate faculties, except that the demand has not come from pharmacists as taxpayers and patrons of education.

Following the example set by other sciences and professions, the first procedure is to select, for junior instructional posts, those persons who combine promise in teaching and research. The second is to insist that junior members of faculties become candidates for higher degrees; and the third is to replace, after a reasonable period, those who show no diligence in this self-improvement.

After insuring this development of proper standards in maintaining the scholarship of teachers, the next is to secure adequate outside support for research. I have already suggested to various state associations, although I fear without arousing much enthusiasm, that a gift of one dollar per member per year to their state school would endow a graduate fellowship to the definite advantage of the profession. Perhaps some faculty will undertake to sell this interesting experiment, which example is almost certain to be followed by demands for more adequate support of research.

If pharmacy is going to develop an adequate research program, the first few impulses at least must come entirely from within the profession. First must be the development of greater research spirit within the colleges, with the use of their present facilities. Second must be the support of this program by the profession at large—material support. Then must come the demand for state support of pharmaceutical research, for the good of the state, without minimizing the need for state support of the educational program. Finally, having demonstrated that pharmaceutical institutions can carry on a program of productive research for the good of pharmacy and the public, should come the campaign for endowed support which will place education and research on a permanent basis.

THE A. PH. A. AND RESEARCH.

The rôle of this ASSOCIATION in publicizing research is well known, since it is one of the oldest scientific societies in America. Our Proceedings, the Report on the Progress of Pharmacy, the JOURNAL and Pharmaceutical Abstracts, constitute an eighty-five year record of scientific advance. Until this time, however, the ASSOCIATION has been content to leave the organization of research projects and operations in other hands, and only sponsor research to a limited

extent through the Research Fund. We now have the expectation of being able to carry out a plan that for a long time has been close to the hearts of our leaders, and which should greatly encourage research in our field.

When the Headquarters Building in Washington was being planned, much thought was given to the inclusion therein of a research laboratory that should be representative of the ASSOCIATION. Such a laboratory could not be competitive with those of the pharmaceutical industries but might be devoted to pure research and pharmaceutical standardization. Despite the great opportunities in pure research, the initial difficulties of endowing this work were great, and out of proportion to a greater need of the profession.

In creating and taking the responsibility for the National Formulary, we have accepted an obligation to provide standards for many medicinal products of great importance to the public health. Through our coöperative work in the revision of the United States Pharmacopœia we have added to our undertakings so that we have the responsibility for the two most important and democratic volumes of pharmaceutical standards in the world. We have also, through the "Pharmaceutical Recipe Book," further contracted to provide standard formulas for the use of pharmacists, this time without added legal consequence. The development of the standards for these compendiums has been practically a labor of love, an unselfish acceptance of duty to the profession. Retail pharmacists, teachers and manufacturers have all engaged, each offering the facilities of his library and laboratory, and in many cases access to even the most confidential records. The democracy of our methods of pharmacopœial and formulary revision is a revelation to many of our own people and a constant source of wonder to visitors from abroad.

As a voluntary work, however, there are certain difficulties connected with these revisions. Chief among these are the ever-increasing need for the prompt study and thorough checking of standards to meet changing commercial conditions. The requirements of both standard volumes demand that such studies be made as quickly as the questions arise. Both committees have tried to simplify the procedures by granting assistants to various committee chairmen, but even this assistance has not taken the place of central laboratories. Sensing the growing need for such a research program, the planners of the AMERICAN INSTITUTE OF PHARMACY provided certain rooms that might become laboratories, which could serve until such a time as benefactors might provide a separate research laboratory building.

On the recommendation of Chairman Gathercoal of the National Formulary Committee, the Council two years ago provided for the establishment of a research laboratory for the creation of N. F. standards. Through the courtesy of the School of Pharmacy of the University of Illinois, quarters were found in their laboratories in Chicago and an experimental program set up early in 1936. At our Dallas meeting the council voted to transfer this activity to the INSTITUTE OF PHARMACY as early in 1938 as possible, and assigned to the Committee on Maintenance the provision of ways and means.

THE ASSOCIATION.

Through my closer contact with its activities during the year, I have become convinced that the AMERICAN PHARMACEUTICAL ASSOCIATION is entering a greater period of usefulness. Probably the ASSOCIATION has undergone a more fundamental change in the past twenty years, without either modifying its original basic purpose or interrupting its regular program, than many of its most interested workers realize.

First came the so-called reorganization, which was only a readjustment to give the state associations, which the A. PH. A. had established and fostered, their proper place in the ASSOCIATION'S organization, and in turn to give the ASSOCIATION the support as affiliated members of all the members of the state associations—in other words, a federation. The federation of state associations, through their delegates, is the real governing force of the A. PH. A. The House of Delegates through its nominating committee selects, subject to final election, the officers of the ASSOCIATION. It can, in three years, in the same way, completely change the personnel of the Council. It elects the Honorary President, Secretary and Treasurer by direct vote upon nomination of the Council. It receives the reports of all committees and approves or disapproves all resolutions. This readjustment also provided for a full-time secretary to direct and supervise the further expansion of the ASSOCIATION and its activities. We now have the form of organization which we believe best suited to our present requirements.

Next followed the headquarters building program, originally intended to provide business headquarters for the association, but expanded to a home for as well as a monument to professional pharmacy. This movement is influencing American Pharmacy in many unexpected directions in addition to providing a beautiful building, splendidly located, well planned and equipped, fully paid for and with room for expansion.

Since the building was completed in 1934, we have learned to operate and use it, improved the surrounding property and made plans for the extension of the services of the ASSOCIATION. We have developed our publication program to the limit of our past resources, replaced the annual "Year Book" by the monthly "Pharmaceutical Abstracts" and are now hoping to expand it along professional lines. We have secured much fuller professional recognition for pharmacy, and have developed our contacts with other professional and scientific organizations.

These changes have required time and effort, and were a necessary preliminary to further professional development. With the expanded publication program is grouped the laboratory, the library and the museum to which the ASSOCIATION was committed during the headquarters building campaign. To establish these added activities will require a considerable addition to our income, and our attention during this year, directed by our Committee on Maintenance, has been devoted largely to that very important undertaking in which I am pleased to have had a part.

I shall leave it to the Committee on Maintenance to give the details, and simply state here that interested and generous friends have added sufficiently to our prospective income for the next three years to make it possible, early in 1938, we hope, to transfer the laboratory from Chicago to Washington, to expand our publication program and to properly organize our library and museum, a program which with its corollary activities will fully occupy our attention for that time. It gives me the greatest pleasure to express my deep personal appreciation of the understanding of these donors and of their great interest in the work of the ASSOCIATION.

I am interested in every activity of this ASSOCIATION, but my great joy is found in the possibility of our having, within a year, a well-equipped research laboratory for the establishment and promulgation of pharmaceutical standards. These will become effective, for the present, through the National Formulary, but we hope to see the laboratory become the center of all pharmaceutical standardization. We now have the means for our greater activities, and the plans will be presented at this meeting for your action. Proper and adequate personnel is now our immediate requirement, and pharmacy must make available the best people for the work to be done, because on the success of these efforts over the three-year trial period will depend the continuation and increase of the financial support we have secured during this year.

We still entertain the hope that the other related national organizations will, when convenient and possible, occupy the building with us in order that here may be coordinated the activities of the various groups having to do with professional and scientific pharmacy. I have already discussed the laboratory; the library and museum require no special comment here. I would like before closing to refer briefly to the publication program; to the great need for an increase in our active membership, and to our legislative program.

PUBLICATIONS.

Our chief medium of contact with our members is through our publications. Some say that our JOURNAL has not been of interest or help to the average pharmacist. Our only answer is that, having but one medium of publication, it represents all of our interests, and must give space to all of the contributions received at our annual meetings. The abundance of scientific and professional papers only reflects the distribution of such papers in the program, for no worthy paper has been denied publication.

We have great need for another journal as a medium for communicating with practicing pharmacists. Its pages should be devoted to news regarding national and state legislation; rulings of regulatory bureaus; news of the state associations, colleges and boards; pharmaceutical economics; queries and the general news of pharmacy. We have observed, for example, that the presidential addresses delivered before state associations are full of meaty discussions and suggestions, many of them applicable to conditions in nearly every state. Published, however, in state proceedings or local journals, they reach only a very local audience. We believe that condensates of these, prepared in the style of the "Digests" that are so popular to-day, would prove intensely interesting and useful to all pharmacists.

For several years the Council has been studying the question of a so-called "popular" journal of pharmacy. The plan which will be presented to you in detail by the Council calls for the inauguration of this journal in 1938, and its distribution for the present without further charge to our membership and that of every state association. The estimated cost of production and distribution is a very nominal one. From indications already in the hands of the Council a number of state associations will later contribute to the cost of distributing it to their members for the purpose of improving their own membership contacts. With this very sketchy presentation, I recommend that the ASSOCIATION give favorable consideration to the plan to be proposed by the Council.

Let me say that in the plans for this journal there is not the slightest intention of making it competitive with the established trade publications. It is to be very definitely an organ of the ASSOCIATION, a division of our present JOURNAL, intended to carry the news of the ASSOCIATION to its active and affiliate members. As such its interest to our membership will, we hope, be similar to that of *Science* to the American Association for the Advancement of Science, or of the *News Edition of Industrial and Engineering Chemistry* to the American Chemical Society.

OUR PHARMACEUTICAL COMPENDIUMS.

The Sixth Edition of the National Formulary has now been in official use for more than one year. Under the critical guidance of Chairman Gathercoal it has surpassed other editions in its scope and accuracy. Mindful of the newness of many of the texts, the Committee has scanned the volume carefully for defects. That this edition is being viewed far more critically than any other is evidenced by the number of critical comments by users. Some are due to misunderstandings and have been explained. The others have, as far as possible, been corrected by the issuance of two successive errata sheets. This task has been much simplified through the accessibility of the N. F. laboratory, and the sympathetic coöperation of the special Advisory Committee on Tablets and Ampuls. The thanks of the ASSOCIATION are again due to all of the workers on National Formulary revision.

Sales of N. F. VI have exceeded our expectations, and a third printing is necessary. The size of this printing has been carefully calculated, for we have probably approached the saturation point more rapidly than with previous editions. We must give thought also to the inevitable appearance of N. F. VII, particularly to whatever moves it is possible to make for greater efficiency in revision.

There is ample ground for the belief that the United States Pharmacopœia and the National Formulary could be more efficiently revised if their Committees of Revision were of a revolving character rather than elected anew every decade. The present system brings too many inexperienced persons to the committees at one time. It is difficult to see what else may be done by a delegate body meeting but once in a decade. This ASSOCIATION, though, is a continuous organization, and is able to fill positions at any time. It is my belief that the work of the Committee on National Formulary would be facilitated if that committee had a revolving membership, thus containing at all times a majority of members of some experience with revision methods and problems.

We can be extremely well pleased also with the attention that the Second Edition of the "Pharmaceutical Recipe Book" has received. Not an official compendium, the sales have nevertheless been gratifying. This volume is a real testimonial to the work of Dr. Lascoff and his co-workers. Although we have no greater proprietary interest in the Pharmacopœia than does any other pharmaceutical or medical organization, our personal interest is great because the larger part of the work of revision is in the hands of our members. We are, therefore, well justified in coupling U. S. P. XI, N. F. VI and R. B. II in our thoughts. They are among the most useful volumes that can be given shelf room in any technical library. There is no other book, for example, that has between its covers the variety of information needed by a chemical laboratory that is to be found in U. S. P. XI. Why can we not, therefore, join in a broader publicizing of these books than is conceived by the usual propaganda program? My own experience with chemists and the Pharmacopœia has invariably shown them to become users and champions of the book once they make its acquaintance.

MEMBERSHIP.

You will receive from other officers and committees reports on our present active membership status, and our prospects as well. May I, however, relieve myself of a few comments. This

is so much a minority association, as active members go—less than five per cent of all practitioners—that one may wonder how or why we can have any influence in the body politic. Yet on any problem affecting pharmacy in its national or even state aspects, the opinion that seems to be desired is that of the A. Ph. A. We have established for ourselves a judicial attitude toward pharmacy's questions, and have carefully refrained from aligning ourselves with cliques when the profession becomes divided. I think that our strength lies in our truly representative membership which includes those from every division of pharmaceutical practice, importers, manufacturers, wholesalers, retailers, teachers, board members, regulatory officials, students and even those who do not practice, but only love pharmacy. Here they meet for the discussion, with equal voice, of all the problems of pharmacy. The A. Ph. A. is indeed the Senate of American Pharmacy.

This small membership is a constant source of bewilderment to me. Many explanations are offered, financial, lack of interest, lack of a proper program, etc. I have spoken of this before as one from the outside looking on in a detached manner. But as a member of another scientific profession, with pharmacy my avocation, I cannot refrain from comparing the attitude toward organization of practicing pharmacists with, for example, that of practicing chemists. Here is a profession numerically much weaker than pharmacy, and, I believe, represented to a greater percentage in the employee class, although the employment is of a high grade. Yet its organization membership and its professional, technical and scientific publications are increasing in number and in circulation.

Chemistry came to its higher educational standards at an earlier date. It has more educational centers than pharmacy. These together may have caused a greater solidarity of professional feeling. I believe, however, that the responsible factor for the greater degree of organization is the missionary spirit among its teachers and workers. It is a rare exception for any teacher or very active practitioner not to belong to the national society. It is also an exception to find a teacher who is not active in membership promotion among his students. What the chemists have is a great pride of profession, so that it is a matter of pride and honor to support their national movement. Therefore, it ought to be a matter of course that every member of a state board of pharmacy, and every member of the faculty of a college of pharmacy should become an active member of this ASSOCIATION.

Does our failure to attract many members result from the fact that we have little to offer, or do we have little to offer because we have so few members to support our program? Did the chicken or the egg come first? We probably have few members because few people understand or appreciate what we have to offer—and we offer a great deal for the dues we receive. We probably preserve our influence because we are well balanced in our membership, yet there are undoubtedly as many more persons who could derive great value from membership. The increase of our active membership must be the concern of every member, just as it is with the chemists. The great field for this membership is in the student bodies, and the annual dues do not equal their cigarette money. To obtain student members is the responsibility of the faculties, both by precept and example; to keep them in the fold, the responsibility of the ASSOCIATION.

I believe thoroughly in the value of local and student branches in stimulating membership activity and interest. It is at times very difficult to maintain branch interest and provide proper programs. Every branch should have a few persons, perhaps only one or two, to act as the main-spring. They are not always easy to find, and by no means as plentiful as their critics. Yet there must be some means for the ASSOCIATION to search out these persons and use them locally.

The national organization does not have the proper contact with the local and student branches. Students especially wish to see persons of national reputation. I would recommend that the Council be instructed to endeavor to work out a plan by which each branch, local, student or prospective, be visited by the President, a Vice-President or the Secretary, each year. A system of apportioning costs would not make this a burden upon either the ASSOCIATION or the branches, and the relationship of the branches to the parent body would be materially strengthened.

LEGISLATION.

This has been an important legislative year, since the Congress and the legislatures of forty-three states have been in session. Our position at the close of the year is an excellent one—some very helpful and practically no harmful legislation has been enacted. Two Committees—the

Committee on Legislation and the Committee on the Modernization of Pharmacy Laws—will report on this subject.

The only national legislation of importance to professional pharmacy is the Marihuana Taxing Bill which is really intended to prevent the use of this drug as narcotic. The A. PH. A. was represented at the hearings on this bill by Chairman Hilton of the Council and as the result of his recommendations, the annual tax on pharmacists was reduced from \$15 to \$3, and provision was made for obtaining the official order forms without personal appearance. The ASSOCIATION was able through its U. S. P.-N. F. Prescription Ingredient Survey to show that the drug now has a very limited use in our field. Many pharmacists will no doubt prefer to dispose of any stocks of the drug and not dispense it.

It is to be regretted that Congress took no final action on Food and Drug Legislation. S. 5 was passed by the Senate in March after being further amended but has not had consideration by the House. The control of advertising will probably be placed under the Federal Trade Commission, and the A. PH. A. has taken the position, wisely, I believe, that we are not interested in where but how this function is to be enforced. The ASSOCIATION should renew its resolution urging Congress to enact suitable food and drug legislation and should continue to cooperate to this end.

The state legislation will be reviewed in the report of the Committee on Modernization of Pharmacy Laws. It is very fitting that this ASSOCIATION, which was responsible for the first model pharmacy act in the country and for the enactment of most of the state acts, should now undertake to cooperate with the states in modernizing them to meet present requirements and to provide adequate enforcement of their provisions.

The A. PH. A. has cooperated with the N. A. R. D. and the state associations in the program for state fair trade acts and in working for the enactment of the National Fair Trade Enabling Act. The decision of the U. S. Supreme Court upholding the California and Illinois Fair Trade Acts greatly stimulated the movement and forty-two states now have such acts. In this decision the Court has acknowledged the property right of a manufacturer in his copyright and his label, and his right as an owner to protect his good-will when unscrupulous dealers use his trade-marked goods to destroy an established market. It is coming to be recognized that the controlling factors in price establishment and maintenance are first, real value, and second, real and open competition. Given these factors, the buying public finally controls prices by forcing the different values of like commodities to common levels. It has been a privilege to cooperate in this movement to improve the financial position of the druggists of the country.

Attention has also been given to a number of less important legislative matters than those mentioned above. In particular, I should like to emphasize the fact that the advice of the ASSOCIATION is being sought more and more by the various departments and officials of the Government on matters which affect pharmacy and, as the result, the ASSOCIATION can materially guide legislative and enforcement procedures.

IN MEMORIAM.

Among those who have passed on during the past year were two members of our official family, Drs. Willis G. Gregory of Buffalo, and Theodore J. Bradley of Boston. Doctor Gregory was our Honorary President for this year, and we had counted largely on his presence with us. Dean Bradley, as our Diamond Jubilee President, presided just ten years ago. His service on the Council and as Chairman of our Committees on Time and Place of Meeting and on Transportation were only several indications of his activities among us. We miss their good fellowship and kindly counsel, and publicly express our sympathy with their loved ones and colleagues.

CONCLUSION.

In closing I wish to express my most sincere thanks to those who have worked with me on behalf of the ASSOCIATION during the past year. I am particularly indebted to my colleagues, Messrs. Lascoff and Munch, for the many ways in which they have served as official representatives of the ASSOCIATION. I know that wherever they have gone they have made friends for us, and have clearly demonstrated the advantages to be gained by making these broader contacts. The members of the Council have been very helpful, as have also those other members who have given of their busy days to committee work.

I cannot say enough in appreciation of the helpful counsel of Secretary Kelly. For a year and a half he has striven to instruct me in the needs of pharmacy and this ASSOCIATION. It has

been my good fortune to sit with him many days in his office and to observe and admire his tactful and efficient ways in the conduct of our business. During this time I have confirmed a suspicion that I have held for many years; that the life and well-being of any association, particularly those in the professional class, centers about its permanent secretary. It is more than a pleasure to make acknowledgment of my gratitude and indebtedness to him for his many kindnesses.

My selection for the presidency came as a surprise to me, for never in my life have I knowingly set myself forward as a candidate for any office. It has been a pleasure to endeavor to serve you during the year, and I hope that during this meeting week we shall be able to see eye to eye on the problems that present themselves, and that all of our deliberations may proceed with neatness and dispatch."

The address was listened to with close attention and was received with applause. It was referred to the Committee on Resolutions of the House of Delegates. President Beal then presented the President-Elect, E. N. Gathercoal, who said in response:

"Mr. President, I would express to you as the representative of the great body of pharmacists constituting the membership of the AMERICAN PHARMACEUTICAL ASSOCIATION, my very great appreciation of the honor they have given to me by election to this office. And to the ladies and gentlemen present, I would call to your attention the fact that the duties of the office and the responsibilities of it, constitute perhaps the greatest responsibilities, duties, that can be conferred upon a pharmacist. A great honor, but a great responsibility.

"I look upon this honor and this responsibility with awe, and yet, of course, no one can be elected to this office without really appreciating and enjoying and remaining very thankful for the great privilege of the office. I thank you."

In introducing the guest-speaker of the evening, President Beal said:

"In the service of the suffering humanity and the general welfare of the people of the United States, both pharmacy and medicine are only servants of the public. Neither of those professions can plan or execute a complete program of the improvement of the nation's health. There is, however, within the government an organization which is charged with this responsibility, which through its administrative agencies can plan, and through its educational and promotional agencies can instruct, organize and point the way in which medicine and pharmacy may coöperate for the much greater improvement of the nation's health.

"This organization is the United States Public Health Service, and it gives me great pleasure to introduce to you Dr. Warren F. Draper, the Acting Surgeon General of the United States Public Health Service, who has come at our invitation to speak to us this evening of their problems and the manner in which we may coöperate. Dr. Draper."

Dr. Draper delivered the following address.

PUBLIC HEALTH AND PHARMACY.*

Two years ago the Social Security Act was drafted. It included provisions for unemployment compensation, for old-age benefits, for federal aid to dependent children, for mothers' pensions, and for services for the protection and care of homeless, neglected and crippled children.

Whether one deals with the problems of unemployment, of disability, of indigency of the blind or the crippled, a very large factor in the problem is the health of the people who are insured. The economics of any such program of social insurance will be stronger if the toll of preventable disease is reduced to a minimum. President Roosevelt, in sending the Social Security Act to Congress, said therefore that under the provisions of the Act, "Additional federal aid to State and local public health agencies and the strengthening of the Federal Public Health Service" must be provided.

Among the diseases which take the greatest and most needless toll are the venereal diseases. Syphilis and gonorrhoea are the most prevalent of our serious communicable diseases. Gonorrhoea can be effectively treated by the medical profession. Syphilis, the more deadly, can be promptly rendered noninfectious and can be arrested with greater certainty than can any disease of similar seriousness.

* First General Session, A. P. H. A., New York meeting, 1937.

Preparatory to the development of venereal disease control measures under the Social Security Act an advisory committee was formed to draft recommendations for state and local venereal disease control programs. Such programs would be an important part of the Public Health development. The Committee carefully studied the successful work undertaken in Sweden, in Denmark, in England and the more effective state programs in this country and made administrative recommendations for an American program.

Those recommendations may be summarized as follows:

1. A separate division of venereal diseases in each state health department with a full-time venereal disease control officer as director.
2. Free and accessible public clinics for the diagnosis and treatment of indigent cases.
3. Free laboratory service available to private physicians for serologic tests, examination of gonorrheal smears and dark-field examinations, both direct and delayed.
4. Supplying of free arsenical compounds and heavy metals to physicians in private practice for all cases.
5. The collection of more complete morbidity and mortality reports.
6. Establishment of epidemiologic procedures, to include follow-up of the lapsed infectious case and the investigations of sources of infection and contacts.
7. Development of educational and informative measures for the physician and the public.

In what way, if any, can the pharmacists of the nation cooperate in the public health program against venereal diseases both nationally and in the states?

There are four ways in which the druggists of America can cooperate in the fight on venereal diseases:

1. They should not prescribe or recommend any remedy for a venereal disease. The problem of venereal diseases will not be solved so long as a syphilitic or a person suffering from a gonorrheal infection can go into a corner drug store, talk with the clerk about his infection, and receive some patent nostrum which allegedly will cure him. In how many drug stores it is possible to do this to-day, I would not venture to say. Each of you knows whether a customer can purchase such medicines in your place of business.

The selling of such materials at the worst constitutes an intended deception of the customer of which, I am sure, the members of this ASSOCIATION would not be parties. At the best, it represents a crass ignorance of the problem of venereal disease. The medical treatment of syphilis has been highly perfected during the last four or five years, through Coöperative Clinical Group Studies in which the United States Public Health Service, the clinics of Johns Hopkins University, the Universities of Pennsylvania and Michigan, and Western Reserve and the Mayo Clinic cooperated. They analyzed more than 75,000 case histories.

There is only one way to cure syphilis in its early stages. That is through repeated intravenous injections of arsphenamine and repeated intramuscular injections of bismuth. The regime of treatment recommended by the Coöperative Clinical Group involves seventy treatments extending over a period of nearly a year and a half. It can safely be undertaken only by a competent physician who is familiar with the problem of the disease. The treatment for late syphilis is even more highly specialized and individual. It requires to an even greater degree, if that is possible, the services of an experienced physician. The treatment of gonorrhea is not as highly standardized as that of syphilis. It requires, just as does the treatment of syphilis, the continuous surveillance of the physician.

Any action which gives to a person infected with either syphilis or gonorrhea the sanguine feeling that he has been cured when he has not been cured is a danger to the patient who thereby risks serious late complications such as cardio-vascular disease, *tabes dorsalis*, or paresis in the case of syphilis, or arthritis or heart disease in the case of gonorrhea. It constitutes also an attack upon the public health of the community by turning loose an infected carrier of a dangerous disease who is ignorant of his own condition.

The danger in the case of both of these diseases is even more acute because each one is subject to periods of latency which contribute to the illusion of cure and are apt to give plausibility to the claims of those who cater to "lost manhood," or "female trouble." "Those are very good phrases to use in advertising nostrums," Surgeon General Parran wrote some time ago, "one can't bring the faker before the judge for failure to do what he promised, because it was so difficult to prove just what it was he promised."

2. Just as the druggist should not prescribe or recommend quack remedies, so he should not purchase or sell proprietary compounds intended for the self-treatment of venereal disease. That point is so completely a corollary of the first point that it will require no separate discussion.

3. The druggist should re-fill only such prescriptions for the treatment of venereal disease as were given originally to the customer by a reputable physician who is still in charge of the case. The druggist is more than a business man. The druggist is the ally and colleague of the medical profession. A quack compound is still a quack compound whether it appears in proprietary form or whether it is given personally to the patient by some unlicensed herb doctor. The filling of old prescriptions originally given perhaps to relieve some reaction from the injection of arsenicals misunderstood by the patient, or which were suitable enough during the early stages of the disease but not in later stages, is a practice to be deplored. It explains the admonition against the filling of prescriptions for patients who have left the care of the physician who wrote them.

4. Finally, the druggist can be of great service in connection with the work of public health education. When a person asks for some nostrum for the self-treatment of syphilis or gonorrhoea, why not give him instead some well thought-out and accurate pamphlet prepared by the United States Public Health Service or by your local health agencies? Why not direct such persons to a reputable physician or approved clinic or to your local health authorities? The pamphlet or you yourself can explain that the real problem cannot be met by self-treatment.

These four points are not new. These four points were urged by the United States Public Health Service in 1918 and 1919 as part of the war time drive on venereal diseases. Venereal Disease Bulletin No. 2 of the United States Public Health Service, issued in 1918, discussed the responsibility of druggists to the public health.

When the Public Health Service suggested then, as I suggest now, these practices which may seem to you as business men rather spartan, remember that I speak as one professional man to another. The modern druggist does not attempt to prescribe across the counter for any other equally serious disease. He would not consider prescribing for tuberculosis or for scarlet fever. He would not take the responsibility for treating a dog bite except as a first aid measure in an emergency. It is not an invasion of any accepted relation between the druggist, the profession and the public to say that syphilis should not be handled across the counter.

I do not make the suggestion here because I think that any of those present would make the attempt, but I think that the AMERICAN PHARMACEUTICAL ASSOCIATION can render a great service in seeking out and bringing into the spotlight of disrepute those unethical people who haunt the fringes of any profession.

I would conclude this section of my remarks with a paragraph from Venereal Disease Bulletin No. 2 of the United States Public Health Service as follows: "In directing men and women suffering from venereal disease along the lines above suggested, druggists of the country will build for themselves a public confidence of great value, and at the same time they will note personally that their best efforts are being given toward the elimination of the venereal disease scourge in their respective communities."

There is one point which I am told has caused questioning at times among the pharmacists. That is the recommendation of the United States Public Health Service, that free drugs for the treatment of syphilis and gonorrhoea be distributed to physicians and clinics for all cases regardless of economic status. That recommendation was made by the advisory committee which was set up by the United States Public Health Service in 1935. That committee was formed to recommend the administrative features of the program. It found that in Scandinavia and in Great Britain, and in all other countries which had successfully combated venereal disease, such distribution of drugs was a constant feature of the program.

It must be remembered that syphilis and gonorrhoea are our two most prevalent serious communicable diseases. Even in official reports, syphilis is twice as prevalent as tuberculosis and scarlet fever; gonorrhoea, four times as prevalent as these two. It must be remembered that the treatment for both these diseases is a long treatment, and that the customary rate is a more expensive treatment than the average wage earner can afford. The public interest demands that all cases be treated and the treatment continue until a cure is achieved. With free antisyphilitic drugs, it is possible for physicians to undertake the treatment of many cases which they would not be able to treat without that service. It will frequently permit private physicians to treat their patients without reference to public clinics or to the meticulous and sometimes onerous regulation

which would govern the treatment of indigents, but which would have no relation to the patient who had a small wage. A great many lapses from treatment, too early to assure cure, can be traced to such regulation. The recommendation is made because the free distribution of syphilitic drugs seemed one of our most effective weapons in the organization of a successful program.

This is not an unprecedented action in any way. Antitoxins and vaccines are usually distributed by public health authorities in just the way we now propose to distribute the arsphenamines and bismuth. These antisyphilitic drugs are not compounds which have ever figured materially in the balance sheet of the pharmacist. They are not things which would ever be for sale to the general public where the larger markups lay but would be sold in wholesale lots, for the most part, to physicians who made a specialty, relatively speaking, of venereal disease treatment. The arsphenamines are a licensed product tested for toxicity by the National Institute of Health and the entire handling of their distribution would bear a closer analogy to the biologicals than to the ordinary business of the pharmacy.

Under the impetus of the drive which has been waged on venereal disease during the last year, we have received some reports as yet unofficial of phenomenal increases in the sale of arsphenamines by the manufacturers. These figures give the hopeful suggestion that the drive is an effective one. Reports from physicians in many localities bear out the assumption that cases are remaining longer in treatment and that many old cases are returning to treatment. Druggists should remember that the program against venereal disease is only one part of the Social Security program for better public health. Of the \$8,000,000 which was set aside for allotment to states, only \$686,000 was spent for venereal disease control.

But the druggists can be assured, I believe, that the expenditure of these large funds, which will make people more health-conscious, will benefit all those whose work in any way contributes to the better health of the American people. It would not, I think, be sound judgment to single out any part of the program with which one might disagree—and I have no evidence that any of you do disagree—without considering the beneficial effect that a sounder, health-consciousness will have on the welfare of your profession as a whole.

On motion of Vice-President Lascoff, duly seconded and carried, Dr. Draper was given a rising vote of thanks for his attendance and that of Mrs. Draper and Miss Draper, and for his splendid address.

Local Secretary Hugo H. Schaefer was presented and made several announcements with respect to the entertainment program.

The Session was then adjourned at eleven o'clock.

SECOND GENERAL SESSION.

This Session was convened at ten o'clock and President Beal read the following telegram from Secretary John W. Dargavel of the National Association of Retail Druggists, addressed to Secretary Kelly.

"Please accept my best wishes to the members of your ASSOCIATION for a most successful and constructive meeting. The N. A. R. D. appreciates the wonderful coöperation and help you have given during the past years. You have been of invaluable assistance and I feel that every druggist in the country should belong to the A. PH. A. because of the work you have done. Please be assured of our desire to continue to work with the A. PH. A. I assure you that I regret exceedingly my inability to attend your meeting but trust it will be outstanding."

The reading of the minutes of the First Session was omitted.

The annual memorial service was then conducted by Chairman Harris of the Section on Historical Pharmacy during which tributes to the following were read:

Wilhelm Bodemann, by William B. Day
Theodore James Bradley, by Ernest Little
George C. Diekman, by J. Leon Lascoff
Willis G. Gregory, by Lewis G. Freeman.

The audience then stood in reverent "memory of all the deceased members of the ASSOCIATION," after which President Beal expressed the thanks of the ASSOCIATION to the Historical Section for conducting the memorial service.

Chairman Robert C. Wilson presented a report of the First Session of the House of Delegates, which was received (see the Minutes of the House).

President Beal thanked Chairman Wilson and said:

"I now come to a part of the program which gives me very great pleasure to carry out. It is that of introducing to you a personal friend, our guest speaker this morning. He is a native of Kansas, and like many other scientists, obtained his initiation into science and found his interest in science by working in a drug store. He matriculated at the University of Kansas, early came under the influence of such great teachers as Dr. E. H. S. Bailey and Dr. H. P. Cady, and with such contacts it was no wonder that his interest in chemistry was nurtured and his aspirations grew. He was also associated with Dr. Bailey and other members of the Department in extra-mural work, and I have heard him speak of his participation in chemical analyses in criminal cases that have become internationally known.

"He met another man at the University of Kansas, who, during his lifetime, did more to popularize the use of science in industry than, I think, any other person who ever lived. That man was Dr. Robert Kennedy Duncan. With the inception of the industrial fellowship system of Duncan at the University of Kansas, Dr. Weidlein was one of the early appointees to an industrial fellowship, and his first investigation, I believe, was into the chemistry and distribution of epinephrine. He found the matter of obtaining a suitable supply of material was such a whale of a job that he went to the Labrador coast for his material where he made a new friend, the present Sir Wilfred Grenfell. Returning to Kansas with the completion of this project, he continued in industrial fellowship work and became engaged in hydro-metallurgy, spending several years in Thompson, Nevada, in the investigation of low-grade copper ores.

"After the Mellon Institute had been firmly established in Pittsburgh, he became associated with Dr. Raymond F. Bacon who succeeded Dr. Duncan, its first director, upon the latter's death, as Associate Director. During the war period, Dr. Bacon being in Europe as a Colonel in the Chemical Warfare Service, Dr. Weidlein was not only in charge of all of the activities of the Mellon Institute but was also busily engaged as a chemical expert with the War Industries Board, and I think it was then that he developed his real taste for Pullman car travel.

"Three years ago, with a friend, I attended a southern meeting of the American Chemical Society. On board one of those long southern trains, and after we had finished dinner, we thought we would go back to the lounge car to burn a little tobacco. We went through car after car, and finally my friend turned to me and said, 'I'll bet if we go through three more cars we'll find Weidlein.'

"Dr. Weidlein became Director of the Mellon Institute in 1920. He has always been active in the American Institute of Chemical Engineers and the American Chemical Society. He was in 1928 and 1929, if I haven't slipped up on dates, President of the American Institute of Chemical Engineers. He has been for years, with only a short lapse, Non-Resident Vice-President of the Chemists Club of New York. He received the Chemical Industries Medal from the American Section of the Society of Chemical Industry on the occasion of the completion of twenty-five years of work of the Mellon Institute.

"During this current year, he is the President of the American Chemical Society, to which so many of our own members belong.

"It therefore gives me great pleasure to present to you this morning my very good friend and my highly respected chief, Dr. Edward R. Weidlein, Director of Mellon Institute of Industrial Research, who will speak to us on 'Science and Industrial Progress.' Dr. Weidlein."

Dr. Weidlein spoke as follows:

"Mr. President, Members of the AMERICAN PHARMACEUTICAL ASSOCIATION: This is indeed an honor and a privilege to be on this platform this morning with my very good associate and your President, Dr. Beal. We at the Institute have been very much interested in the valuable work that he has been doing with your organization. It has enabled us to get a better picture of the useful activities in which this ASSOCIATION is engaging.

I also am fortunate this morning in being in a position to bring you officially the greetings of a sister society, the American Chemical Society, because I think the two organizations have a great deal in common and, as Dr. Beal pointed out, there are many members who belong to both societies.

In thinking over what to speak to you about this morning, one thing that Dr. Beal said, that you are interested in research work, impressed me. You know enough about your own field and I think therefore it is far more interesting to know something of what is going on in other fields and also to know whether research really pays.

The organization with which I have the good fortune to be associated since its very beginning, offers a clear illustration of the value of scientific research work. The new building which we dedicated in Pittsburgh during May of this year has been considered a memorial to Andrew W. and Richard B. Mellon; but if you would talk to any member of the Mellon family, you would find that it is not so regarded by them, but as a substantial appreciation of the work of some one thousand research men who have contributed such valuable results to the benefit of humanity that Andrew W. and Richard B. Mellon were willing to erect that building in order that these scientists could pursue their studies further. The staff members of the Institute have gotten a lot of credit for having induced the Mellons to put up such a building, but I can assure you that our persuasion methods would never have eventuated in that building. It was the results of the research men themselves and the Mellon brothers realized what these men were contributing to the benefit of humanity and they could see no reason why they should not continue with the very best facilities possible in order to carry on their work.

We started out on this research program, as Dr. Beal pointed out, under the leadership of Dr. Robert Kennedy Duncan. He probably did more than any other chemist to awaken the interest in industry to the value of research work. His whole simple idea was to bring about a real method of cooperation between science and industry.

We began operations in the basement in the building of the Chemistry Department of the University of Kansas. We had just a few laboratories, very little facilities and very little money to carry on the work. It was more difficult back in 1907 to obtain \$500.00 from an industry to carry on research work than it is to-day to obtain \$100,000. Industrialists had to be shown that we could get results. That is probably the reason why I was given such a difficult program in the beginning, to try to improve the method of manufacture of epinephrine, to get a larger supply and also to try to help build up an industry on the Labrador coast.

Dr. Grenfell was struggling for an existence and he was trying to introduce manufacturers there. One of the ideas conceived by him was that, if he could use the suprarenal glands from the whale for producing epinephrine, it might be a valuable industry for Labrador. I was put on this particular problem.

I recall quite well—and this brings out a good characteristic of Dr. Duncan—how he looked at things in a broad and big manner. When he called me in to talk about it, I said, "Dr. Duncan, I have never heard of a ductless gland." He said, "Boy, neither have I. Let's go in the library and find out what they are," and together we went in the library. Well, it required one year's study in the medical schools in order to be able to recognize and understand what the ductless glands were, but very fortunately, when I came back from Newfoundland, I had the glands. I also remember the look on Dr. Duncan's face. He said, "Boy, did you really get them?" I said, "I most certainly did." "Well," he said, "they were never able to locate them in a whale before," and that is quite true. Dr. Grenfell and his staff had not been able to find them but Dr. Duncan was the sort of individual to whom you would not dare come back without a definite result.

The writings of Dr. Duncan had attracted the attention of the Honorable Andrew W. Mellon and his brother, Mr. Richard B. Mellon. They persuaded Dr. Duncan to come to Pittsburgh and subsequently established a Department of Industrial Research in the University of Pittsburgh in a little frame building. In that building, the total cost of which was \$10,000, which is just equal to the cost of one of the columns on the new building, and there are sixty-two of them, it did not take long to prove that Dr. Duncan was on the right track, and, in 1913, they allowed him to take their name and the Mellon Institute was established.

Our first real home, the home that we occupied for 22 years, was completed in 1915, one year after Dr. Duncan's death. We thought, then, that that building would serve, for all time, all the purposes of Mellon Institute, but it did not take long again to completely out-grow the quarters and we are now in our new headquarters, which is ten times the capacity of the former building. It is a building nine stories high, containing six and one-half million cubic feet of space and to-day all its finished space is occupied. We are finishing off some of the little additional space that was

left uncompleted for further expansion work, which does show something of the recognized value of scientific research.

One of the interesting problems that I also saw developed right from the very beginning, a product in which you people are interested, is phenol. There was a time, as you can well recall, when practically all our phenol was imported and was used mostly for pharmaceutical purposes, but owing to Dr. Baekeland's work and to one of our early fellows at Mellon Institute, Dr. L. V. Redman, you know that they converted phenol into synthetic plastic materials that started a valuable new industry.

This industry really had its inception about 1914, but it is interesting to recall that, after the World War, the government had 40,000,000 pounds of phenol on hand that had been bought for something around 57 cents a pound. We had learned to produce phenol in this country at that time but could not produce it at a low cost. However, the government was willing to sell this product, to get rid of it, at 12 cents a pound, which seemed to be a ruinous price at that particular time, but that really started the synthetic plastic industry on a successful career. To-day there are used, in that one industry alone, over 40,000,000 pounds of phenol a year and it can be produced for less than 12 cents a pound, which shows the tremendous advances that are taking place through research.

There is an industry, the synthetic plastic industry, that started and celebrated its twenty-fifth year in 1936, that represents annually a hundred million dollars' worth of business. That indicates concisely what science can do for the benefit of humanity.

It is rather interesting to mention, however, that an industry that is developed by science and that owes its existence to science, oftentimes becomes a little narrow. We had a problem put up to us at the Institute to try to adapt some of these synthetic plastic materials for scale housings. A company desired to cut down the weight of its product. These scales, which many of you probably use, have been employed in confectionery and grocery stores and meat markets, and they wanted to reduce their weight. They weighed 175 pounds and the president said he couldn't get salesmen who were strong enough to carry the samples around for demonstration. There was also the fact that, when they put them down on the counters in some of these stores, they would find them in the basement the next day. So he said that he wanted to revolutionize the scales and one way he thought he could do it was through the use of synthetic plastics.

We tried to adapt all the available synthetic plastics for making these scales, but none of them was suitable and so we evolved a new one from urea as a basis. That industry came along, that is, they wanted to start to utilize this material, in 1931, which was getting to the low part of the depression. None of the companies in the synthetic plastic field was interested because they said you could not make a resin from urea that would be of interest. Well, this particular manufacturer decided that he was not in the synthetic plastic business but formed a subsidiary company and in 1932, built a plant and started the manufacture of this urea resin, called Plaskon. That was in February. In November of 1932, through the low period of the depression when things in general could not be done in a highly competitive field, that plant had paid for the total cost of its development and all the basic research work. It went ahead and expanded so fast that it was not until the early summer of 1935 that they could get enough of their own material for their own use so that they could manufacture the housing for scales. To-day that scale weighs 54 pounds and is a beautiful new machine.

But that experience shows how an industry surrounding itself with and originated on research work may become narrow. The Plaskon industry, one of the largest in the field to-day, made and paid the dividends of the parent corporation through the period of the depression.

Interesting group of resins are the vinylites made from natural gas or petroleum products. The manufacturer cannot produce enough of the material to meet the demand. One of the new uses is in safety glass. A great many people do not realize what the defects are in even some of our new developments. It is not necessary to let the general public know as long as the product is giving service and is better than anything that is on the market, but the safety glasses that have been used in the past were not safe when you reached a certain temperature below freezing and, of course, that was only during certain times of the year and in certain sections of the country. The manufacturers knew that they were not satisfactory. They also knew that streaking resulted. To-day, in working out new plasticizers, we are able to use vinylite for this particular purpose. It will meet almost all conditions of weather and gives far finer products.

One of the other products coming in as a substitute for glycerin is ethylene glycol. There is a product that was not on the market until 1928. It really did not come into its own until 1929. It was in direct competition with glycerin and it has been interesting to see research carried out in both fields. Research has been conducted so fruitfully on ethylene glycol and also on glycerin to such an extent that to-day one has difficulty in getting a supply of either one. The manufacturers cannot meet the demands for them, showing what research will do in finding applications of importance.

Going back to the vinylite compounds, we have been able now to introduce them into homes. They are even competing with glass. That brings up another very interesting field of research in progress at present in glass technology. We have overlooked the possibilities of glass. In the past, we have looked at glass mostly for window panes and decorative purposes. To-day, glass is entering into all kinds of new phases of industry. It is going into building materials. Right over here, the new tunnel in New York is being lined with glass. There is a building constructed down in North Carolina entirely of glass and there is another out in Ohio. You will find many new glass buildings in connection with the World's Fair to be held here in New York in 1939. We are just learning the possibilities of introducing glass in such ways.

Another interesting thing is that glass is entering into the textile field. Scientists have learned to so alter the composition of glass that they can produce it in all kinds of different properties and characteristics. You can take an ordinary ketchup bottle and draw it so fine, that is, you can draw so fine a thread from the glass therein, that it will reach from New York to Los Angeles, showing what the possibilities are in that direction.

In the textile field, there are many beautiful products being produced out of glass at the present time. Some are used in chemical industry as filtering materials. There is also the possibility of use for awnings or drapes in public buildings. There are many prospective uses for materials of this kind. I have even seen some very beautiful glass neckties made from this material.

However, the big field for this glass fiber at present is as an insulation in our homes and that reminds me of another very appealing field, the possibilities of new developments in our homes. There probably is no field so backward as our homes. We probably utilize less of the new developments of science in making conditions more comfortable in our homes than in any other phase of activity. I am quite sure that if the automobile industry had been as backward in its development and in applying the new materials and things that are available as we have been in our homes, we certainly would never have seen that industry develop as it has.

It is rather encouraging, though, to note the fact that people are beginning to discuss this great problem. They are realizing the opportunities, and I think you will see some real advances taking place. Many of the new synthetic plastics and new synthetic fibers are finding places within our homes. You can even build a home of fireproof construction to-day with steel-backed material, having it beautifully lined with a plastic material or a very thin veneer of wood, giving the effect of a wood room. All these materials are available for new home construction, which would make it ten times easier to effect sanitary, moisture-proof and vermin-proof conditions.

Take one of the simplest things which has not been given any consideration at all until just recently. It is the ordinary cookstove. Every housewife objects to cooking in the summertime and certainly it is difficult, during even the remainder of the year, to work in the heat from a cookstove. All of that is waste heat. It is only recently that a development has taken place in that particular direction. The average cookstove converts only 20 per cent of the heat it produces into cooking purposes. A new stove is 84 per cent efficient. You can have it in continuous operation for 24 hours out of the day and it takes only 8 pounds of coal per day to cook for a family of twelve.

One of the interesting things that you are going to see in the near future is a combination stove and refrigerator, in which the waste heat from the stove will operate a refrigerator unit. There is no reason why it cannot be done.

Many new developments are taking place through the application of science. It has taken us a long time to appreciate the fact, even in hot days such as this. You are comfortable in this particular room, but in the ordinary home, with proper insulation, it is not necessary to have an air-conditioning unit. In fact, I am not so sure that we know a great deal about air conditioning at present. I know perfectly well that if I live too long around air-conditioned equipment, I get certain sinus effects that are not pleasant. However, we do know enough about insulating materials that we can properly insulate our homes, which will save our fuel bills in the winter and

give us comfort in the summer. Such insulation will give about a ten-degree difference in temperature from the outside and that is about all one needs. With warmed air, proper humidification and proper insulation, one can get a very fine air-conditioning unit. All those advantages are just beginning to be realized.

Another very interesting field is in other lines of textile materials. For example, we all know what rayon has done to the cotton industry. Right now, we are starting research work on cotton as a raw material. There is only one solution that I can see for the cotton industry and that is for real coöperative work in studying the plant and stalk and every part of it to find out how it can be utilized as a basic raw material. We all know what the demands are for textile-finished products and we know what great advances have been made in the rayon industry. We also know that, at the present time, even woolen-like materials, made from a product of skimmed milk called casein, are being sold right on Fifth Avenue, New York. There are all sorts of new materials of that particular type coming on, so that cotton has to be regarded as a basic raw material to ascertain in what way it can enter into new developments; whether we can convert it into cellulose and oil (there is a great demand for the oil) and whether we can use the cellulose products for manufacturing new types of textile materials.

We do know that research must be carried out in order to save the cotton industry.

Another industry, to take a rather old industry to show how little work has been done and what could be done, is marble. When we started out on this particular investigation, the marble people said, "Now, whatever you do, don't change the characteristics and properties of marble. The last thing that God ever made was marble and He put all the beauty that He possibly could into a particular product." We were supposed to start and see what we could do with waste materials and the like, but the men on this particular research, being imaginative and curious, finally, on their own account, started in to see what they could do in changing the characteristics of marble. One of the things they produced was albite marble. The only albite marble which was produced came from Belgium and had a little gold streak in it. But to-day we have on the market an albite marble. It was produced artificially for the first time just a year ago.

This particular material has found many new applications in building construction work and it has opened up a new field for a great deal of the waste material in the marble industry, old marbles for which they had no use whatsoever and which had no characteristic value in any way.

We went along further in this particular line of investigation and made what we call "Lumar," so that now one can put marble in a store front that will be translucent. Put your lights back of it and you have never really seen beauty until you see some of this new material that is now being produced.

That has opened up a whole new line of activity for marble for remodeling store fronts where they can have the beautiful effect of the marble by day and can put different colored lights in back of it and get different effects from the same marble at night.

Take the lobby of our own building. We needed a certain color of marble, a soft brown marble, to fit in with our particular type of construction. We had to go to Italy to get that marble. To-day, we can produce that same type of marble here out of other marbles that we have as natural products, which, again, shows what the future possibilities are for this particular industry. Marble producers will be able to supply the architect with almost any type, color or kind of marble which he needs to fit into a particular type of construction. This, again, shows what can be done with an old industry.

Another interesting field of opportunity for scientists, is to benefit the farmer, not only as I have pointed out, in the cotton industry, but in the use of all types of agricultural products. I personally do not see any other solution for the farm problem except the utilization of these farm products by industry. We are using an enormous amount of corn at the present time in producing various types of solvents. We are getting into the soya bean industry, an industry that has only been really getting under way in the past five years. Last year, it did not produce enough soya beans to meet market demands and the demands right now, I think, are far ahead of the supply this year. Here we leave an example of a recent contribution of science to farming.

Take a simple thing like sugar, a product about which you would think we know something. It has been used in diets since the thirteenth century and yet nothing was really known about sugar until modern nutritionists began to study it. The sugar people had no information whatsoever to use in combating misinforming advertising. They did not even know what the

value of sugar was. No information had ever been obtained on the subject, so they had to start in with research work on that particular problem to get the facts.

It is rather interesting to know that sugar is one of the cheapest, purest sources of raw material that we have available to-day and we are starting to develop a chemical industry based upon sugar. This new industry is in its baby stage at present, up in Niagara Falls, but even to-day it is producing valuable products that are finding their way into industry. One of them is sucrose-octa-acetate which is being used as a denaturant for alcohol. It is just as bitter as sugar is sweet and it is finding a wide application in that particular field.

The levulinates and other compounds are beginning to find new uses. If we could produce enough of these levulinates to-day in quantity (we are finding some difficulties in manufacturing), to one industry alone could be sold from five to ten million pounds of them, showing what possibilities are when you bring out a new product of such utility.

One of the other things that we have to do in all our research work is to find out and keep in touch with what the other fellow is doing. I think I can best illustrate that in the petroleum industry. The petroleum field has constantly got to know what the automotive engineer is planning to do and what he actually is doing. Right at the present time, the automotive engineer's tendency is to cut down the weight of the motor, to get more power per cubic inch of cylinder capacity. The result is that a terrific pressure is being put on the petroleum people to produce lubricating oils and gasolines that will stand up under those conditions.

In the lubricating oils, we are actually adding chemicals in order to make them more oily, to produce a film that will stand up under these particular conditions; also in the gasoline to prevent gum formation at these higher temperatures. We must constantly know what is going on in related fields in order to meet demands and to keep up with them.

I learned recently that General Motors is going into the manufacture of a new Diesel engine for automotive purposes that will run forty miles on a gallon of oil which, at the present price of crude oil, would cost 10 cents.

Along this same line, they are utilizing a great deal of petroleum and its products. We originated in our own organization the four largest chemical industries in the world, based upon natural gas and waste from petroleum products, utilizing those products to produce new chemicals. Many of them are finding their application in pharmaceutical and medical fields, and yet the majority of these chemicals were not on the market as late as 1930. This producer had his greatest growth through the period of the depression, from 1930 up until 1937, and averaged a 33 per cent growth each year.

That is a clear illustration to me that it does not make any difference as to time. If a company has the energy and the courage to go into a new development, these new products will find their application regardless of the time and conditions. Most of these new products, over a hundred of them now, are finding wide applications. All these new developments took place through the period of the depression; and if you follow any industry that was really doing constructive research work during the depression, you will notice that they were the first ones to come out on top when business conditions became better.

I do not see any way that we can continue to go ahead except by the practical application of science through and with industry. One thing that is disturbing at present is that of all the taxes that the government is getting the majority is coming from these research developments that originated by the coöperation of science with industry. Can the scientists, working in coöperation with industry, keep up with the taxation that is being placed on them and the increased wages that are being demanded?

One thing that must be worked out is that there really has to be some systematic planning to know just how far you can go in a particular direction, because certainly we need money for further development and carrying on this work. Scientists are constantly cutting down on the cost of products and I know that our present state of civilization and high standards of living in America can be directly traced to this type of coöperation. The future of it depends on just how free we are going to be allowed to be to go ahead with such developments. I thank you!"

On motion of Dr. J. A. Koch, duly seconded and passed, Dr. Weidlein was given a rising vote of thanks for his attendance and his instructive address.

President Beal explained that the report of the Committee on Maintenance had been presented, through the request of the Council, at the First Session of the House of Delegates and then recognized Dr. E. Fullerton Cook who presented the following annual report on:

THE UNITED STATES PHARMACOPŒIA.

As has long been the custom, the Chairman of the U. S. P. Committee of Revision herewith presents a report on the state of the Pharmacopœia to the members of the A. P. H. A. in annual meeting assembled.

It is only two years since the new U. S. P. XI was released, but in this rapidly moving age it has been found necessary already to issue a Supplement to the Pharmacopœia. This new plan for the U. S. P., which was announced last year, of "interim revisions," is an accepted and accomplished fact.

The First U. S. P. XI Supplement.—The new U. S. P. Supplement has been available for about two weeks and already hundreds of copies have been distributed. These have been generally received with favor and appreciation.

It is desirable to briefly review the circumstances which have compelled the U. S. P. to adopt this revolutionary program.

The necessity for periodic revisions of a Pharmacopœia has always been recognized and in the age of our grandfathers a ten-year period was adopted for the U. S. P. as reasonable and practicable. This decennial revision still prevails for the major revision processes, but the members of the Committee of Revision and the Board of Trustees faced the necessity several years ago of developing a workable plan for the revision and official adoption of such standards as were found to be in need of immediate change due to the development of new and important scientific facts.

This has been forceably brought to the attention of these official bodies by the intense activities of the past few years with respect to new food and drug legislation.

When the so-called "Tugwell Bill" was introduced into Congress and open hearing inaugurated in Washington, at least four unanswerable reasons for the adoption of a flexible period of U. S. P. revision forced themselves upon those responsible for the Pharmacopœia.

Number 1.—A feature of this proposed legislation, and a feature of every succeeding food and drug bill brought to the attention of Congress during the past few years, has been a requirement that should an official standard, test or assay prove to be obsolete or inadequate the Food and Drug Administration officials will be required by the law to call this to the attention of those responsible for the revision of the Pharmacopœia and allow "a reasonable time" for the necessary revision of the standard. If, however, the Revision Committee does not take advantage of this opportunity and suitably revise the text, bringing it up-to-date, the Government officials will be required by the law to perform this service.

Some such clause will likely be a feature of whatever food, drug and cosmetic legislation is finally passed by Congress.

To meet this situation the machinery for the handling of "interim revisions," efficiently and promptly, is imperative.

Number 2.—In addition, at these food and drug hearings, representatives of the American Medical Association called attention to the fact that a Pharmacopœia, the standards of which remained "frozen" for ten years, was not suitable as the basis for the effective enforcement of standards for the quality and purity of drugs. The A. M. A. had demonstrated the necessity for a frequent revision of medical standards and also its practicability, by issuing annually their own book of standards for newer remedies, the "N. N. R." Again, to meet this evident need, the U. S. P. has adopted a policy permitting the "revision of its standards whenever necessary."

Number 3.—Once more, the Pharmacopœia had to face the need for a prompt revision of such official standards as were seemingly impossible of enforcement or apparently unfair to those honestly trying to meet such standards. The U. S. P. X standard for Tincture of Aconite illustrates this point. Even though the manufacturers produced a product which when finished and sold fully met all official requirements, it was found that, due to uncontrollable conditions which no one understood, the product deteriorated rapidly and, if inspected by Food and Drug officials even a few months later, would fail to meet the U. S. P. requirements. Under these circumstances the officials had no alternative, they had to take legal action against the manufacturer

whose product failed to meet the standards of the U. S. P. Again is seen the necessity for an "interim revision" to help the honest but helpless manufacturer.

Number 4.—Finally the members of the medical and pharmaceutical professions needed a book of official standards in which would be found important new therapeutic agents. It was essential that the U. S. P. should be worthy of acceptance by the leaders of both medicine and pharmacy as a guide to the best in modern therapeutics.

The new "interim revision" policy, which authorizes the issuance of Supplements to the U. S. P. whenever necessary to keep it up-to-date in scope and standards, is demanded by progressive and able physicians and pharmacists.

Additional U. S. P. Supplement.—The U. S. P. Board of Trustees have authorized additional "Supplements" whenever, in the opinion of the Committee of Revision, these are a necessity. The "First Supplement" embodies every change officially authorized to June 1, 1937.

Now that the "First U. S. P. XI Supplement" has been released and the program fully launched, the chairman is announcing a list of almost one hundred additional subjects to which the attention of the Committee of Revision has been called, mostly within the past four months. These have already been referred to the appropriate Sub-Committee Chairmen, and are now under consideration. This list is publicly announced at this time, that many workers interested in the Pharmacopœia may have the opportunity to aid in solving these problems by voluntary research.¹

A definite procedure for "interim revisions" has been developed as follows: As the apparent need for the revision of standards, tests or assays, are brought to the attention of the Committee of Revision they are immediately referred to the appropriate Sub-Committees for study, with the request that a recommendation be made as soon as possible covering such changes as seem to be required.

The criticisms are also copied in the Circulars of the General Committee for record and, as soon as the Sub-Committee reports, this report is also copied in the General Circulars and the criticism and subsequently the approval of the entire Committee obtained. This proposal is now ready for wide publicity as "A proposed U. S. P. revision" and manufacturers and research workers everywhere, especially in the pharmacy colleges are invited to try it and criticize it. At an appropriate time, with all proposed changes widely announced, the Executive Committee of Revision, or at least those Chairmen of Sub-Committees responsible for the proposed revisions hold a public hearing in Washington, D. C., to which are invited all who may be interested in the proposals.

At this hearing all discussions are stenographically recorded for the later consideration of the Committee. Immediately following the public hearing the U. S. P. group hold a conference with the officials of the Food and Drug Administration and the U. S. Public Health Service.

Following this the U. S. P. Committee members confer and reach final decisions on all questions under consideration; these are announced and at the appropriate time included in the next official "Supplement."

Note that the "Supplement" reprints in full all texts in which the slightest revision has been made. This is to avoid any misunderstanding of the exact character of the revision and to provide a printed copy of the latest official text, for such legal consideration as may be required.

The U. S. P. XI Spanish Edition.—Following the appearance of the U. S. P. VIII, in about 1905, representatives of the University of Havana, under the leadership of Dr. José Guillermo Diaz, proposed the translation of the Pharmacopœia of the United States into the Spanish language and its adoption as the official Pharmacopœia for the Republic of Cuba. Dr. Diaz specifically recommended at the time that this project become one of the activities of the Pan-American Sanitary Bureau, at Washington, D. C., and thus receive a semi-official standing, and also be made available to the Republics of Central and South America.

In the development of the program at the time it was found more practical to enlist the aid of the University of Havana, and through the financing of the U. S. P. Board of Trustees the First Pharmacopœia of the United States, in Spanish, appeared in about 1908, the U. S. P. VIII. This was promptly adopted officially by the Cuban Government and was welcomed and widely used in our own possessions, the Philippines and Puerto Rico.

¹ A copy of the U. S. P. subjects now under review may be obtained upon request from the office of the Chairman, 43rd and Woodland Ave., Philadelphia, Pa.

This translation was almost exclusively the work of Dr. Diaz who again translated the U. S. P. IX. When the time came for the translation of the U. S. P. X, Dr. Diaz was unable, because of ill health, to undertake the revision, but he organized a Committee of the University of Havana, and, before the revision was completed, he again was able to give unlimited time and painstaking care, for the perfection of this revision.

In the Spanish translation of the U. S. P. XI, it became possible to secure the active participation of the officials and translators of the Pan-American Sanitary Bureau at Washington, through the splendid coöperation of Dr. Cumming, the Director, Dr. B. J. Lloyd, the Assisting Director and Dr. Moll and Mr. Marquez of the staff. This group, coöperating with the Cuban Auxiliary Commission, of the U. S. P., once more under the leadership of the able and indefatigable Dr. Diaz, have just completed the U. S. Pharmacopœia Eleventh Edition, in Spanish. This translation embodies all changes and revisions up to June 1, 1937.

Extending Information to Physicians Concerning the Use of Official Medicines.—The coöperation of a special Committee of the U. S. P. XI Revision Committee, and the officials of the American Medical Association, during the past two years, has made possible the series of twenty-four articles on "The Pharmacopœia and the Physician" which have been appearing in the *Journal of the American Medical Association*.

Twenty-four additional articles, dealing with important therapeutic problems have just been arranged. These will appear regularly in the *A. M. A. Journal*, during the coming year. Other articles on the treatment of children's diseases have also been approved. In developing this third series the coöperation of a joint Committee of the American Pediatric Society and the American Academy of Pediatrics has been secured.

These articles, as they appear in the *Journal of the A. M. A.*, are being supplied in the form of reprints, suitably punched for a loose-leaf cover. These booklets are being widely distributed among the members of the medical profession, also to students in medical colleges, and to internes in hospitals. They are intended to add to our knowledge of modern therapeutics and are being written by eminent specialists in each field.

The Policy for Articles on "The Pharmacopœia and the Physician".—The policy under which this series of articles has been developed, should be correctly understood. The authors of these articles have been urged to make a genuine contribution to modern therapeutics. They have been invited to include in the recommended treatments any therapeutic agent known to the world, which in their judgment is of the greatest value in such treatment, without regard to its official or other status. It was further announced that if these authors recommended the use of medicinal products which were not now official, the Sub-Committees on Therapeutics, and on Scope, will give prompt consideration to their possible inclusion in the Pharmacopœia by interim revision.

An analysis of the recommendations by the authors of the first nineteen A. M. A. articles in this series is exceedingly interesting. Actually, there have been only 17 articles released dealing with therapeutic treatments. The first article was an introduction to the series, and the second article dealt with the advantages and importance of using original prescriptions in the correct treatment of individual patients.

The analysis of these articles reveals the fact that the authors in discussing various conditions mentioned therapeutic agents 947 times. Of the items named 84.05 per cent are now official in the U. S. P. XI, 5.28 per cent are in the N. F. VI. 5.92 per cent are in "New and Non-Official Remedies," and 4.75 are not standardized in either the U. S. P., the N. F. VI or the N. N. R.

A further analysis of these articles reveals the interesting fact that 270 actual U. S. P. XI titles were named, 31 N. F. titles, 31 N. N. R. titles, and 29 therapeutically active substances not recognized by the U. S. P., the N. F. or the N. N. R.—a total of 361 individual therapeutic agents. The per cent of these individual items recommended for use in the 17 articles is: U. S. P., 75 per cent; N. F., 8.5 per cent; N. N. R., 8.5 per cent; other substances, 8 per cent.¹

The U. S. P. Vitamin Advisory Board.—The members of this Board, Dr. Sherman, of Columbia University, Dr. McCollum, of Johns Hopkins University, Dr. E. M. Nelson, Director of the Vitamin Laboratory of the Food and Drug Administration, Professor E. F. Kelly, repre-

¹ Anyone desiring a list of items named in the A. M. A. articles may obtain these by addressing the chairman of the Committee of Revision.

senting the U. S. P. Board of Trustees, and E. Fullerton Cook, for the Committee of Revision, have continued to actively develop the standardization of Vitamin products. A "Reference Cod Liver Oil" was provided with known potency with respect to its Vitamin A and its Vitamin D activity expressed in "U. S. P." or International Units. This potency has been confirmed by hundreds of biological assays and it is being widely distributed not only in the United States, but in many foreign countries. This "Reference Oil" was internationally recommended as a subsidiary standard for Vitamin A and Vitamin D by the Vitamin Committee of the Health Organization of the League of Nations.

The Vitamin Board has also been cooperating in the establishment of standards and assay methods for Vitamin B₁. Within the year the Vitamin Board has obtained from Dr. Jansen, of Amsterdam, Holland, an ample supply of Vitamin B₁ adsorbate, identical in character and potency to the International Standard. This material has been widely distributed in this country by the Pharmacopœial Board as the standard for Vitamin B₁. The Board is at this time continuing the study of the assay methods for Vitamin B₁ and at the same time is standardizing and preparing for distribution a new Vitamin B₁ standard consisting of synthetic crystalline Vitamin B₁. Five assay methods, all modifications of the "M. I. Smith rat-curative assay process," have been proposed for comparative study. Many vitamin laboratories throughout the country are participating in this investigation. The Pharmacopœia is supplying the International Standard Adsorbate, the U. S. P. Reference Adsorbate, and Synthetic Crystalline Vitamin B₁, which will be compared by these five methods. It is hoped that as a result of this study a satisfactory method of assay can be developed and given official standing and also that a standard crystalline Vitamin B will be made available, with known value in terms of International Units.

The U. S. P. Anti-Anemia Products Advisory Board.—This special Pharmacopœial Board, consisting of: Dr. Wm. B. Castle, Dr. George R. Minot, Dr. Raphael Issacs, Dr. Walter W. Palmer, with Dr. C. W. Edmunds, as *Chairman*, have been developing standards for Anti-Anemia products during the past eighteen months. This Board plans to establish a U. S. P. unit value, based upon the reticulocyte response to anti-anemia medication, as the basis for standardizing such products. They have received the cooperation of practically every important manufacturer of liver and stomach preparations in this country and abroad and these firms have submitted clinical data to support the efficiency of their products.

Hundreds of anemia cases have been studied and reported upon in confirmation of the value of these preparations and these reports are now before the Board for consideration. It is expected that on January 1, 1938 the Board will announce a list of Anti-Anemia preparations which conform to the standards established by this Board for the Pharmacopœia.

The Digitalis Investigation.—Under the chairmanship of Dr. Henry A. Christian, of Boston, the Chairman of the U. S. P. Committee on Therapeutics, a central committee of specialists in cardiac diseases has been established. This Committee has invited the cooperation of more than 50 medical centers in this country, where cardiac studies are under way, and about 25 bio-assays experts, to participate in an investigation which will continue for at least three years. The British Pharmacopœial Commission have also accepted an invitation to participate in this study both clinically and the bio-assays. Members of the Swiss Pharmacopœial Commission and of the Government Laboratories of Canada are also taking part in the program.

The Pharmacopœia will supply digitalis preparations in three strengths, one of normal activity, a second preparation 25 per cent stronger, and a third preparation 25 per cent below normal. The only differentiation between the appearance of these preparations will be the color of the labels or coatings. The clinicians will use these preparations in selected cases and report the results. They will report the apparent potencies in terms of the colors. The bio-assayists will also examine these preparations by the methods which in their experience have been found most satisfactory and it is hoped that every method which has been advocated in recent years by bio-assayists will be tried.

All of these reports will be submitted to the Central Committee for analysis. Those who are participating have agreed to repeat their experiments within a year and again within two years, using the material originally supplied, some of which will have been subjected to various aging conditions. The Pharmacopœia will ultimately publish the results of this reasearch.

Abstracts of Pharmacopœial Literature.—The U. S. P. Board of Trustees have financed that portion of the YEARBOOK OF THE A. PH. A. which presents abstracts of Pharmacopœial litera-

ture. This volume is therefore a valuable compilation of abstracts of researches in the Pharmacopœial field.

The Board has also paid for the annual publication of abstracts of Pharmacopœial literature prepared by the library staff of E. R. Squibb and Sons. In this abstract the members of the staff review systematically more than 280 journals covering international literature in every division of medical sciences.

This abstract is presented, without charge, to all of the medical and pharmaceutical libraries of this country, all members of the Committee of Revision, and all Pharmacopœial Commissions of the world.

A compilation is also being prepared, by authors and subjects, of every paper presented during the Pharmacopœial decade, beginning in 1927. This will be available in 1940.

U. S. P. Reference Standards.—The Pharmacopœia is distributing to manufacturers of Pharmacopœial products a large number of reference standards. The following are available: Reference Cod Liver Oil, of known Vitamin A potency; Reference Cod Liver Oil of known Vitamin D potency, a reference standard for Vitamin B₁; an Aconite standard, a Digitalis standard, an Ergot standard, a Pepsin standard, a Pituitary standard, a Ouabain standard and an Epinephrine standard.

The Pharmacopœia has prepared these standards with the coöperation of various experts and in most instances has paid the full cost of production and standardization. A nominal charge is made for the standard to cover this cost.

International Standards.—The U. S. Pharmacopœial Board of Trustees has recently been officially appointed the distributing agent in the United States for the International biological and vitamin standards as prepared and distributed by the Health Organization of the League of Nations. The Vitamin Laboratory of the Food and Drug Administration also distributes the International Vitamin standards. These International standards are only available in relatively small amounts, but they have been of the greatest value throughout the world as the basis for the establishment of our national standards, such as digitalis, vitamin A and D and pituitary.

An International Pharmacopœia.—At the meeting of the International Pharmaceutical Federation in Copenhagen this month, one of the subjects of special importance to be discussed will be the setting up of a Secretaryship on Pharmacopœias at the League of Nations.

This proposal has been specially studied by a Committee of the League for several years and it is hoped that its establishment will be realized in the near future. An international organization of this character could assemble the Pharmacopœia literature of the world and re-distribute in various languages to all nations, thus avoiding an enormous amount of duplication in effort. It could also organize international committees to draft model monographs which would serve as a guide to Pharmacopœial Commissions throughout the world. The adoption of these, of course, would be entirely voluntary.

A Joint Meeting with the American Medical Association.—The suggestion has come from several sources that an effort be made to arrange for simultaneous meetings of the American Medical Association and the AMERICAN PHARMACEUTICAL ASSOCIATION, and joint sessions of some sections. The A. M. A. meetings are always held in the spring. Our AMERICAN PHARMACEUTICAL ASSOCIATION meeting is transferred to the spring on the decennial year, so that members may be able to attend the Pharmacopœial Convention. It would be especially desirable for the 1940 meeting of the A. P. H. A. to be held during the same week and in the same city as the American Medical Association. The extensive scientific exhibits and other exhibits coincident with the A. M. A. meeting should be of great value and interest to American pharmacy and a plan such as this would stimulate coöperation in our Pharmacopœial program by more fully uniting pharmacy and medicine in a worth-while professional program and bringing the most able scientific workers to the 1940 Pharmacopœial Convention.

Dr. Cook was extended a rising vote of thanks on motion duly seconded and passed.

Secretary Kelly reported that the Council had approved a request from the Section on Commercial Interests that the name of the Section be changed to Section on Pharmaceutical Economics in order to more adequately indicate the activities of the Section and recommended to the General Session that the By-Laws be changed in accordance. Secretary Kelly moved that Article I of Chapter VI of the By-Laws be amended to change the name of the Section on Com-

mercial Interests to Section on Pharmaceutical Economics. The motion was seconded and under the By-Laws became a part of the program of the Third General Session.

In adjourning the Session at 11:50 o'clock President Beal urged prompt and full attendance at the closing General Session on Saturday morning.

THIRD GENERAL SESSION.

President Beal called the Session to order at 10:15 o'clock.

The secretary reported for the Women's Auxiliary of the AMERICAN PHARMACEUTICAL ASSOCIATION that Mrs. Robert P. Fischelis was elected *President* for 1937-1938, Mrs. H. M. Whelpley, *Vice-President*, and Mrs. Charles J. Fuhrmann as *Secretary-Treasurer* and that the following Articles had been adopted by the Auxiliary.

Article I—Name. This organization shall be known as the "Women's Auxiliary of the AMERICAN PHARMACEUTICAL ASSOCIATION."

Article II—Object. The object of this organization is to promote Sociability among the members, to assist the AMERICAN PHARMACEUTICAL ASSOCIATION in carrying out entertainment programs, and to establish a Student Loan Fund for women pharmacy students.

Article III—Officers. The officers of this ASSOCIATION shall be a President, a first Vice-President and five District Vice-Presidents, representing the East, the Middle West and North-west, the South, Far West, respectively, a Secretary and a Treasurer to be elected annually, and hold office until their successors qualify.

Article IV—Membership. The female members of the families of the members of the AMERICAN PHARMACEUTICAL ASSOCIATION shall be eligible to membership. Application may be presented at any session of the Auxiliary and shall be accompanied by the annual dues. A majority vote of the members present and voting shall be necessary for election. The annual dues shall be \$1.00 payable in advance.

Article V—Meetings. The annual meetings shall be held during the week of the Annual Conventions of the AMERICAN PHARMACEUTICAL ASSOCIATION. "Special Meetings" may be called by the President if necessary. 21 members shall constitute a quorum for the transaction of business.

Article VI—Order of Business. The order of business at meetings shall be as follows:

1. Roll Call
2. Reading of Minutes
3. Appointment of Nominating Committee
4. Propositions for Membership
5. Reports of Officers and Committees
6. Unfinished Business
7. New Business
8. Election of Members
9. Election of Officers
10. Adjournment.

Article VII—Payment of Bills. All bills incurred throughout the year shall be referred to the President and the Secretary and if approved and signed by these officers, such bills shall be paid by the Treasurer.

Article VIII—Amendments. This constitution may be amended by a majority vote at any regular meeting.

The report was received for publication with a vote of thanks to the Auxiliary, on motion duly seconded and carried.

Secretary Kelly presented a summary of the proceedings of the Second Session of the House of Delegates and then read the thirteen resolutions adopted by the House. On motion duly seconded and carried, the report was received and the resolutions were adopted.

The motion to amend Article I of Chapter VI of the By-Laws of the ASSOCIATION, by changing the name of the Section on Commercial Interests to Section on Pharmaceutical Economics, as made at the Second Session, was then put to a vote and carried.

Secretary Kelly called attention to the majority and minority reports submitted by the Committee to study the By-Laws at the Dallas meeting, final action on which had been deferred to this meeting. (See JOURNAL, April 1937, page 360), and moved that final action be again deferred to the 1938 meeting. The motion was seconded and carried.

President Beal announced for the Scientific Section that the Committee on Ebert Prize was unable to make a selection for the prize this year and that the Ebert Prize would not be awarded in 1937.

Vice-President Lascoff was requested to act as Marshall during the installation ceremonies and to present those officers-elect to be installed. H. A. B. Dunning, P. H. Costello and S. L. Hilton were installed as members of the Council for three years, W. L. Scoville representing Dr. Dunning, who could not be present.

W. Mac Childs and Glenn L. Jenkins were installed as First and Second Vice-Presidents for 1937-1938, Robert C. Wilson representing Mr. Childs who was absent.

President Beal said:

"During the entire year, I have been thinking of how pleasant it would be to present to you on this day my good friend, associate in many activities of the ASSOCIATION and former University colleague, your President-Elect. We are very sorry that, because of a slight indisposition, that will be impossible, and Dr. Gathercoal will not be with us this morning. There is, however, no question in my mind regarding the choice of a proxy. There is a gentleman with whom Professor Gathercoal has been associated professionally for many years, a gentleman who already has served the ASSOCIATION in that capacity in which Professor Gathercoal is to serve, a gentleman with whom Professor Gathercoal, I know, has had many pleasant years of communion over the affairs of the AMERICAN PHARMACEUTICAL ASSOCIATION. Dr. Lascoff, will you please escort to the platform Past-President William B. Day?

"Dr. Day, will you please convey to Dr. Gathercoal our great regret that he could not be with us this morning, our hope that he will soon be restored to perfect health, our pledge for full cooperation and our best wishes for his successful administration. Will you also please turn over to him, on my behalf, this pin which is the official insignia of the President, and this gavel, which is not only an emblem of the ASSOCIATION, but also emblematic of one of the greatest contributions that American pharmacy has made to medicine."

Dr. Day responded as follows:

"I left Dr. Gathercoal's bedside a few minutes before I came into the room and I believe that he is very much better. The physician, however, feels that he should remain in bed another day.

"He regrets most deeply that he is not able to be here to take part in this much looked-for installation. Professor Gathercoal, as you know, is a very serious-minded man and very deeply interested in the AMERICAN PHARMACEUTICAL ASSOCIATION. His efforts for many years past for the advancement of pharmacy and the welfare of the ASSOCIATION have been not short of strenuous. I feel sure that you can count on his most earnest efforts. The only limitation apparently seems to be his health and we hope that with care, his health will be completely restored.

"It is a great pleasure to accept on behalf of Professor Gathercoal, this installation."

President Beal then read the following message from President Gathercoal:

"It is with deep regret that we find it impossible to be present with you in the Final Session of the Convention at which we have anticipated for so long the inauguration of the new president. However, the physician in charge says, 'No,' and his authority must be respected.

"We have already expressed to you our great appreciation of the honor you have bestowed by the election to the presidency of this great ASSOCIATION.

"In assuming this office, I would pledge to you my complete loyalty and my endeavor to do all that lies in my power to forward the many and varied activities of the ASSOCIATION. My natural inclination, perhaps, is toward the National Formulary and the new laboratory along with recognition of professional pharmacy; however, I am also deeply concerned with the educational, legislative and economic sides of pharmacy and will certainly give earnest thought to these phases of our ASSOCIATION activities.

"In the conclusion of this short letter permit us to extend our sincere thanks for the many expressions of kindness from the ASSOCIATION and especially from the Local Secretary during our short illness. It is wonderful indeed to have so many true friends.

"We are thankful also to our Maker for physical health and strength and for prompt recovery from the illness. We have assurance from the physician that we may start for home on to-morrow."

Secretary Kelly and Editor Eberle were presented and, in his absence, Treasurer Holton was given a round of applause.

President Beal expressed his great pleasure in serving as president during a meeting so successful from every point of view, and extended the thanks of the ASSOCIATION to Local Secretary Schaefer, who was given a rising vote of thanks. In responding, Secretary Schaefer accepted the vote of thanks on behalf of himself and of the members of the committees who had cooperated with him and expressed the hope the ASSOCIATION will soon meet again in New York.

President Beal thanked all who had contributed to the success of his administration, and since there was no further business to be transacted, declared the Eighty-Fifth Annual Meeting of the ASSOCIATION adjourned sine die, at eleven o'clock.
