of fire that within the sacred sanctuary has never darkened, will be your part as recurs this beautiful ceremony year by year, that honors you in the eyes of all our friends.

And may not the recipient of the tribute this evening extended, now add a word in his own behalf, without breaking the conventions of occasions such as this? He comes this day to awaken mental greetings with friends of old, but not afar off, and to link them with friends new, close about. To weave into this story of the past the names of those who taught us how to live and sacrifice, who, joining the past with the present, gave him the right to stand as their representative. In their name, as well as his own and his own loved ones, he wishes to thank you—his friends—for the privilege offered in this eventful occasion.

And lastly, most gratefully does he accept the honors this day bestowed, honors that can come to but one person each year.

May it not be asked? Could a more touching testimonial be devised to gladden the heart of him who, an apprentice in pharmacy still, this the evening of his seventy-first birthday, receives this medal and celebrates also his golden anniversary of membership in this, our beloved Society?

THE MACHINERY FOR THE U. S. P. IX REVISION.*

BY E. FULLERTON COOK.

General Committee of Revision.—The General Committee of Revision, consisting of 51 members, one of whom was the President of the Convention, *ex-officio*, having been elected by the Pharmacopoeial Convention of 1910, the Committee proceeded to elect its chairman, but largely left in his hands the details of organization.

There was to be an Executive Committee of fifteen members to be elected from the General Committee and presided over by the chairman of the General Committee, and it was understood that there would be sub-committees.

Professor Remington, the elected chairman, fortunately had experience in revision work covering at least four decades, and, qualified by his natural organizing ability, was able to create a machine which worked harmoniously and effectively. With the approval of the Committee and Board, the following general plan of organization was carried out:

Sub-Committees.—Each member of the General Committee was invited to express his preference for the type of revision work which he would care to assume, the list of sub-committees having been decided upon at the first meeting of the Committee in Washington. These sub-divisions consisted of:

1. Scope
2. Therapeutics, Pharmacodynamics and Posology
3. Biological Products, Diagnostical Tests
4. Botany and Pharmacognosy
5. General and Inorganic Chemistry
6. Organic Chemistry
7. Proximate Assays
8. Volatile Oils
9. Fluid and Solid Extracts, Tinctures
10. Aromatic Waters, Spirits, Liquors
11. Syrups and Elixirs
12. Cerates and Ointments
13. Miscellaneous Galenicals
14. Tables, Weights, Measures
15. Nomenclature

From these preferences, the chairman of the General Committee appointed sub-committee members. Naturally, the botanists indicated their preference

* Read before the Philadelphia Section of the American Chemical Society.

for that type of work; chemists selected chemical subjects; the physicians, scope, therapeutics and related subjects; while the pharmacists were specially interested in pharmaceutical preparations. These assignments by one who was personally acquainted with practically every member of the Committee, proved generally acceptable and satisfactory. The appointments, however, according to the by-laws, were confirmed by the General Committee and Board of Trustees. Each sub-committee then proceeded to elect its chairman, the election being finally approved by the General Committee and Board of Trustees.

Executive Committee.—By common consent, it was then decided that the chairmen of sub-committees would constitute the Executive Committee, the general chairman presiding according to the by-laws. This plan has been very effective, as the Executive Committee has thus consisted of representatives from every sub-committee and naturally, being chairmen, they were all active workers.

Method of Revision.—The following plan of procedure was then adopted: The Sub-Committee on Scope decided very promptly upon the majority of the substances to enter the new Pharmacopoeia. This list, over which there was no difference of opinion, was immediately placed in the hands of the other sub-committees for their consideration, while the Sub-Committee on Scope proceeded with the further consideration of drugs, chemicals and preparations, over which there was some question concerning admission. As these were decided they were reported to the Executive Committee, with the vote of the Sub-Committee on Scope, and finally, if admitted, referred to the proper sub-committee for revision. As a preparation, drug or chemical, or possibly a process, was referred to a sub-committee, the chairman was given entire liberty of action and two different methods were in general use, depending upon the preference of the presiding officer. In one instance, the chairman compiled all available data on each subject and submitted it to his sub-committee for their consideration and comment. Having completed this step, and any necessary experiments or tests, he then prepared a tentative text, embodying the desired changes, as indicated by his own experience and experiments, and the recommendations of members of his sub-committee. The text was then submitted to the sub-committee and again subjected to their criticism. When finally satisfactory to the sub-committee, the revised text was sent to the chairman of the Executive Committee, who modified the wording, if necessary, to bring it into harmony with the editorial style decided for the new book, and then submitted it to the Executive Committee for their comment.

The other plan used by some sub-committee chairmen was to assign the subjects submitted for revision to individual members and ask that reports be made promptly to the chairman of the sub-committee, embodying the proposals for a revised text. These reports were in turn submitted to the entire sub-committee by the sub-committee chairman and, when finally approved, placed before the Executive Committee. The general chairman now compiled all comments and discussions, submitted by the members of the Executive Committee, and these were presented before the entire Executive Committee, and copies sent to the members of the sub-committee which had submitted the original report.

When practically all of the articles submitted to a sub-committee had been reported upon, in most instances arrangements were made for the members of

the sub-committee to hold a personal conference, when all suggestions or adverse criticisms were considered, and a report drawn up for submission to the General Committee. At this time the chairman of the General Committee again carefully revised the copy from an editorial standpoint, and submitted it in full, as proposed for inclusion in the new Pharmacopoeia, to all members of the General Committee.

It must not be thought that the General Committee had no part in the revision up to this time. Many subjects of general interest, and policies and principles of the revision had been placed before the General Committee as the work proceeded, and all comments received from many sources and submitted to the convention had been published in the General Committee circulars. Another feature which proved of great value was the placing of monthly "reports on progress" from every sub-committee, before the General Committee. This feature of the revision work was not generally known, but the general chairman sent a request to every sub-committee chairman, about ten days before the end of each month, asking him to fill out an enclosed blank. This blank covered all likely activities of the sub-committee during the month, and these were compiled and submitted regularly to the General Committee as already indicated. This plan increased activity in the sub-committees and at the same time kept the General Commitee familiar with all parts of the work. As the revision work is largely voluntary, it was found desirable to use this publicity method, within the Committee, to stimulate progress.

At the same time that this material was submitted to the General Committee, abstracts of proposed changes were prepared and published in the JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, and reprints very generally distributed, so that the country could see what changes were proposed in advance of the actual publication of the book. In the experience of the last committee, it was shown that any extensive publicity of proposed changes prior to this point would be premature. During the actual discussion on revision, the work would be prolonged beyond all reasonable time if the public would be admitted to the preliminary committee conferences, and discussions are more free and valuable if kept within the sub-committees. The experience of the last Revision Committee has shown that publication at this stage of the revision gives ample time for those who are not on the committee to give valuable criticism or recommendations and this feature should remain a part of any revision scheme.

Preparing the Manuscript.—Ample time having been allowed for comments from the committees and also from those who were interested in Pharmacopoeial revision, who were not members of the Committee, but had access to the published abstracts, these were assembled on sheets containing the latest copy of the proposed text, as submitted to the General Committee, and were given detailed consideration by the chairman, in conference with the different sub-committee chairmen. Those which were found of vital importance and sufficiently tested, were embodied in the text. The manuscript was now made up—every title, the construction of sentences, capitalization, punctuation, and other editorial detail being given a final polishing, and the manuscript sent to the printer.

Of course, before this time, sample pages to show styles of type and general arrangement had been approved. The galley proofs were submitted on standard

size paper ($8^1/_2 \times 11$), perforated for binding, and were clean impressions taken from a press, so that they were perfectly legible. The galley was now sent to every member of the Executive Committee, in duplicate, and as the galleys were returned by the members to the general chairman, the comments were assembled in the chairman's office upon one set of galleys. These comments were once more given consideration in conference with the sub-committee chairmen, and corrected copy for page proof returned to the printer. Page proof in duplicate was now submitted to every member of the General Committee, and the returned comments from the General Committee once more assembled on one set of page proof, and from this material the copy for foundry proof was prepared. The general chairman finally passed upon the foundry and plate proofs and printing was ordered. Two thousand copies were in the first printing, and these were sent to the journals for review, to all members of the Committee of Revision, and a few were sold. A few typographical errors were discovered by this critical review of the finished book and these were all corrected in the plates before the first large edition of 10,000 copies was printed, so that the main edition, from the very start of the printing, was free from the majority of the errors which have been only recently announced.

Conferences Suggested for the New Revision.—As a result of the experience in the revision of the U. S. P. IX there is one outstanding feature which would seem to lend itself to broader application in the next revision, namely, an increased number of personal conferences. While it is true that the next revision of the Pharmacopoeia does not seem to call for as extensive alteration, in either style or fact, as heretofore, and therefore will naturally require much less time for revision than the U. S. P. IX, yet the correspondence method is so cumbersome and time-consuming, that the conference plan for getting results would greatly lessen the necessary time of revision. As an illustration of the time necessary for the correspondence methods, with the committee scattered over a large part of the United States, and the time for an exchange of mail being at least five days in some instances, the following general plan had to be followed in voting:

The subject for consideration was presented to the Committee by the general chairman, with a statement of the proposal and any necessary explanations or comments for the members. Two weeks was allowed for assembling all discussions. At the end of two weeks, a voting sheet was mailed to each member with all the comments on the proposition. Two weeks was again allowed for the return of the voting sheets before the result of the vote was announced, thus four weeks was the minimum time required for a vote. As frequently happened, a member would submit an amendment, which required another two or four weeks for final settlement. Thus it will be seen that the hundreds of problems before the committee involve an extended time for final agreement.

It is therefore suggested that when the General Committee of Revision of the U. S. P. IX submits its recommendations to the Convention for procedure in the new revision, they advise the new General Committee to meet for at least one day following the Convention, elect a chairman, sub-committees, and sub-committee chairmen and dispose of a few of the more important questions of policy before adjourning.

There should then be arranged a personal conference for each sub-committee,

as soon as they have enough material before them for arriving at decisions, which would probably be about six months after their organization. The most important modification to increase efficiency and lessen the time of revision, however, would be a personal conference of the Executive Committee, at least once in each two months during the active work of revision. In the interim, the general chairman could place many problems before the committee, with discussions, and a programme for a conference at an agreed time, when most of the questions under consideration could be decided in a one-day meeting. Full stenographic details of the conferences should be presented to each member immediately after the meeting and the decks being cleared by the conference, new work could be considered in preparation for the next meeting. It is believed that if the Executive Committee again consists of the sub-committee chairmen, these personal conferences will tremendously stimulate the work of the sub-committees, as each chairman will be expected to report in full the condition of the work in his own subcommittee at each of these conferences. This plan will, of course, necessitate a personal sacrifice of time on the part of the members of the Executive Committee, but it is believed that this method will so greatly facilitate the work of revision, that it can be concentrated into the first year and everyone promptly relieved of the burden. Of course the railroad and hotel expenses of these conferences should be met by the Convention.

SUGGESTIONS FOR THE NEW PHARMACOPOEIA, WITH SPECIAL REFERENCE TO PETROLEUM PRODUCTS.*

BY ROBERT R. GERSTNER.

Numerous suggestions have been made from time to time in attempts to obtain a more satisfactory ointment base than the usual benzoinated lard from which most official ointments are made to-day. In reviewing pharmaceutical literature it may be noted that the proposed changes are of dubious value, but the very fact that attempts are continuously being made to modify this ointment base is a conclusive proof that a change is desirable.

In the preparation of ointments it is important that perfectly smooth, homogeneous mixtures be obtained and that the fatty vehicle be stable and absolutely free from rancidity, since they are often applied to tender surfaces and would otherwise prove a source of irritation instead of soothing applications. Benzoinated lard no matter how carefully prepared will become rancid. When rancid it is of a granular appearance and consistency and therefore makes an unsightly and unsatisfactory ointment.

The tendency of lard to become rancid is increased very much after such ointments have been heated to the temperature necessary for their sterilization. These drawbacks of this widely used ointment base are just selected at random, but many more have been mentioned from time to time in pharmaceutical publications. In addition the cost of lard at present is constantly increasing and has reached the point to-day where it is the most expensive of the commonly mentioned ointment bases. Pharmaceutical researchers are constantly striving to devise new methods of production, and experimenting with different materials, aiming

* Read before New York Branch, A Ph. A., March meeting, 1920.