Table No. 7.

D—Fourth portion, tightly corked, opened occasionally.

Injection	Dog No. 1 No. 1 m.m.	Dog No. 2 No. 2 m.m.	Dog No. 2 No. 3 m.m.	Average m.m.
Immediate rise	12.	10.	23.	15.
Fall	54.	40.	26.	40.
Fall after 5 min	—4.	0.	—18.	—7.3
Fall after 10 min	—6.	—1.	0	—2.3
Fall after 15 min	—6.	—2.	0	—2.7

When assayed for total alkaloid by the process of Keller, on May 6, 1912—0.076% was obtained.

SUMMARY.

Table No. 8

How Kept	Date tested	No. of injections	Aver. rise of blood-pressure	Chemical assay for total alkaloid
Original sample	5-26-11	5	44.8 m.m.	0.163%
D—Tightly corked (3 months), opened occasionally	8-24-11	1	30.0 m.m.	
D—Tightly corked (9 months), opened occasionally	2-29-12	2	20.0 m.m.	
A—In *vacuum* (1 year old)	5- 9-12	9	49.1 m.m.	0.168%
B—Tightly corked (1 year old)	5- 9-12	5	29.8 m.m	
C—Loosely corked (1 year old)	5- 9-12	4	16.5 m.m.	
D—Tightly corked (1 year old), opened occasionally	5- 9-12	3	15.0 m.m.	0.076%

The apparent extreme variations in the rises recorded in the different animals are due to both the difference in the susceptibility of the dogs and to the difference in the order of injection of samples. In order to obtain the true relative strengths of the preparations the order of injection was reversed in succeeding animals until each preparation had been given to each of several dogs and the results based on the analysis of the several injections.

It may thus be seen that by adopting the *vacuum* method of putting up ergot the rate of deterioration can be so retarded as to make this product one of stable quality for a considerable length of time.

We have already taken steps to apply the same method of preservation to the preparation of other drugs somewhat prone to deterioration, such as digitalis and strophanthus.

PHYSIOLOGICAL LABORATORY OF H. K. MULFORD COMPANY.

THE REVISION OF THE UNITED STATES PHARMACOPOEIA.*

JOSEPH P. REMINGTON, CHAIRMAN.

The work of preparing the Ninth Revision is proceeding rapidly. The new plan, which differs essentially from all previous methods, while involving more

*Read before the Section on Pharmacology and Therapeutics of the American Medical Association.

labor and consuming more time than any other revision, has justified the wisdom of the convention in adopting the present method, which consists mainly in increasing the number of the members of the General Committee of Revision from twenty-six to fifty, but more especially in creating an Executive Committee of fifteen from this number to prepare a complete report which will finally be approved by the General Committee. Inasmuch as almost the whole work is conducted by correspondence, the voting on the reports which consumes the greatest amount of time is now limited to fifteen members instead of fifty. Each of the members of the General Committee of Revision occupies a place on one or more of the sub-committees, he being given his choice of the particular part of the work which he prefers, the actual appointment, however, having been made by the Chairman of the General Committee, who has charge of the immediate revision of the work.

The plan does not differ from the usual method of doing constructive work in which much detail is involved. A large body, interested in drugs, medicines and preparations, is organized, representing all parts of the country. From this body is first elected a convention, which meets once in ten years; this convention, consisting of about four hundred representatives, elects a committee of fifty, termed the General Committee of Revision; they elect a smaller body of fifteen, called the Executive Committee. The Executive Committee, having fifteen subjects, embracing all of the Pharmacopoeia work, is composed of the chairmen of fifteen sub-committees. The sub-committees work under their chairmen upon the subjects for which they are best fitted. By this plan it is hoped that every valuable suggestion in the work of Revision will find its way from an individual member first to the sub-committee having the subject in charge, then through the Executive Committee, through its report, then to the General Committee, Editor and General Chairman, before it reaches the printer. Considerable time had to be spent effecting a complete organization and at this time the most difficult part of the work is under way.

The following table shows the state of the work in detail:

SUB-COMMITTEE BULLETINS.	Pages
No. 1—Scope	288
No. 2—Therapeutics, etc.	103
No. 3—Biological Products, etc.	80
No. 4—Botany and Pharmacognosy	212
No. 5—Inorganic Chemistry	408
No. 6—Organic Chemistry	659
No. 7—Proximate Assays	202
No. 8—Volatile Oils	34
No. 9—Fluid and Solid Extracts	202
No. 10—Waters and Spirits	139
No. 11—Syrups and Elixirs	258
No. 12—Cerates and Ointments	41
No. 13—Miscellaneous Galenicals	121
No. 14—Tables, Weights, and Measures	75
General Committee Circulars	...
No. 15—Nomenclature	1119
Executive Committee Letters	588
Total	4529

The text has been reported in full to the Executive Committee for 288 articles.

The pages of official circulars, letters and bulletins are given. The circular page is 9 x 16 inches and the official letters and bulletins 8½ x 11 nches. Each circular and letter is numbered and paged consecutively and temporary binders are furnished to each member, these, in turn, being transferred to permanent binders, to be placed upon a book-shelf when 500 pages are completed, constituting Volumes I, II and III, etc. This is necessary because constant reference to preceding pages is required for study. The large pages are used for communications for the General Committee of Revision and are termed Circulars. The smaller pages are used for Executive Committee work, being numbered and paged consecutively, and are termed Letters. The term "Bulletin" is used to designate the letters which pass between the sub-committee members for official comment and record. Communications from firms, corporations, physicians, pharmacists, scientific bodies and the public generally and the replies thereto are not included in the summary, although they constitute a large amount of correspondence.

Naturally, it has consumed considerable time to effect a system for controlling the detail, but when once established, the routine is easily followed. It may be of interest to the American Medical Association to have some detailed information as to the immediate progress of the work.

Sub-committee No. 1, *on the Scope of the Pharmacopoeia,* has practically finished its labors. The sub-committee consists of nine (six physicians, one manufacturing pharmacist, one importer of drugs and one medical doctor, who is a pharmacognocist). It was the duty of the sub-committee to propose the list of Admissions and Deletions, for, while the other members of sub-committtees could employ their time in arranging general subjects pertaining to the classes of preparations of which they have charge, it was necessary to hold up detailed work on these until each sub-committee knew what drugs and preparations they had to work on. Delay was obviated through requesting the sub-committee on Scope to send a report including such well-known and largely used subjects as quinine, opium, rhubarb, digitalis, belladonna, etc., which were approved by every one on the Sub-committee on Scope as admissions. This enabled the sub-committees to begin work at once. Subsequently the Sub-committee on Scope presented a tentative report embracing the full list, as far as possible of articles recommended for admission and deletion. The list, after being approved, was sent for publication to the journals last August. This does not mean that before the book is printed some changes may not be made in the list. A few manifest discrepancies, not exceeding ten, were noticed in this tentative list, but they were corrected at once.

Sub-committee No. 2 *(Therapeutics and Pharmacodynamics)* has been actively engaged in preparing a list of doses, and a posological table has been submitted, which will soon be ready to report to the Executive Committee. The sub-committee has further contributed valuable information on other subjects.

Sub-committee No. 3 *(Biological Products, Diagnostical Tests, etc.).* This sub-committee has taken up animal substances, and a number of experiments have been made to determine reliable data, and the report will soon be ready for the Executive Committee.

Sub-committee No. 4 *(Botany and Pharmacongnosy).* Progress is being made in this sub-committee and a great deal of careful scientific work will come within their domain. The number of workers in the botany and pharmacognosy of medicinal drugs is limited and there are many problems, particularly concerning the origin and identity of plants, that remain unsolved.

The new Pharmacopoeia can not possibly be delayed until every question is settled, but time is required to present the most reliable information to be had. A pharmacopoeia can do no more than present the most reliable and accurate information obtainable. Fortunately ,the drugs of doubtful origin or identity constitute the minority. A great deal of correspondence has passed between the members of this sub-committee.

Sub-committee No. 5 *(General and Inorganic Chemistry).* The sub-committee has accomplished much work. It has one of the largest subjects in the Revision. The first report to the Executive Committee will be completed in a few weeks. A uniform method of taking physical constants, particularly solubilities, has not yet been adopted. These will be inserted after the factors have been determined by actual experiment.

Sub-committee No. 6 *(Organic Chemistry).* The work of this sub-committee is in a forward state. The condition which exists here is the same as of the previous sub-committee. The Executive Committee is in possession of the bulk of the report without the insertion of the physical constants.

Sub-committee No. 7 *(Proximate Assays).* The report of this sub-committee will soon be sent to the Executive Committee. Inasmuch as this work has no interdependence on other sub-committee work, it was deemed best to wait until the report was completed before submitting it to the Execuive Committee. It is nearly finished.

Sub-committee No. 8 *(Volatile Oils).* The chairman of this sub-committee has submitted a tentative report on volatile oils to the sub-committee and it is now being considered. The finished report is expected to soon be laid before the Executive Committee.

Sub-committee No. 9 *(Fluid and Solid Extracts and Tinctures).* A great deal of work has been done on this subject and much has been written in the journals. Evidence is being sifted and, if required. a report could be sent at once upon the greater number of preparations. A few require further tests before adoption. Type samples for the 1880, 1890 and 1900 Pharmacopoeias are in the possession of the Chairman to determine the keeping qualities of fluidextracts and tinctures.

Sub-committee No. 11 *(Syrups and Elixirs), No.* 12 *(Cerates and Ointments), No.* 13*(Miscellaneous Galenicals).* With a few exceptions, reports can be made upon these subjects within two months.

Sub-committee No. 14 *(Tables, Weights and Measures).* A number of tables are ready for report; the standard temperature for use in determining solubilities, specific gravities, etc., have been taken up by the sub-committee, and the chairman has labored indefatigably, but the work requires continual calculation and study; but there is no likelihood that the Executive Committee will be embarrassed on its account when the time comes to need it, because of needless delay.

Sub-committee No. 15 *(Nomenclature).* This sub-committee has sent a preliminary report to the Executive Committee. When the principles of nomenclature

have been settled, the work will not be likely to cause much discussion as far as the Chairman is able to judge. The convention settled the question, very largely, of the nomenclature of the new Pharmacopoeia. The recommendation was as follows:

"We recommend that changes in the titles of articles at present official be made only for the purpose of insuring greater accuracy, brevity, or safety in dispensing, and to eliminate therapeutically suggestive titles. In the case of newly admitted articles, it is recommended that such titles be chosen as are in harmony with general usage and convenient for prescribing, but in the case of chemicals of a definite composition the scientific name should be given at least as a synonym.

"There should also be inserted, after each article used by physicians in prescriptions, a carefully considered, abbreviated name, which may be known as an official abbreviation, in order that uniformity may be established throughout the country, with the object of preventing mistakes in reading and compounding prescriptions, and further, to serve as authorized abbreviations in labeling the store furniture of the pharmacist."

This sub-committee has always reported in previous revisions after the other sub-committees have sent their reports and the admissions and deletions have been finally determined.

It is not surprising in Pharmacopoeia work to hear criticisms in certain quarters asking definite information and date for the appearance of the new book. While every effort should be made persistently and continuously to push the work, great patience is required in order that hasty conclusions or incorrect guesses be eliminated. At present, thousands of interested observers throughout the country where there were hundreds before will scrutinize the pages with the utmost care and with very good reason, for the Food and Drugs Act decisions are based upon the standards of the United States Pharmacopoeia, and it is only by continual vigilance that errors may be eliminated and that a work involving so much responsibility can be successfully produced.

Now is the time to send the Chairman suggestions, criticisms and comments in order that they may be thoroughly considered.

COOPERATIVE WORK ON A UNIFORM METHOD FOR ALCOHOL DETERMINATIONS.*

L. HENRY BERNEGAU.

At one of our last meetings in 1910 a discussion arose in regard to determining the percentage of alcohol in products and preparations such as Wines, Elixirs, Fluidextracts, etc. At this meeting I stated that the percentage of alcohol determined in a certain N. F. preparation by different chemists varied about 3 per cent. The samples of said preparation were assayed for alcohol by three

*Report of Committee of the Scientific Section of the Philadelphia Branch of the American Pharmaceutical Association.