Section on Scientific Papers

Papers Presented at the Sixtieth Annual Convention

MINUTES OF THE SECTION ON SCIENTIFIC PAPERS.*

FIRST SESSION—Tuesday Afternoon, August 20, 1912.

The first session of the Section on Scientific Papers was, in the absence of both Chairman Richtmann and Secretary LaWall, called to order by Associate F. R. Eldred, of Indianapolis, at 3:30 P. M., in the ball-room of the hotel, on the eighth floor. Freeman P. Stroup, of Philadelphia, acted as Secretary.

Mr. Eldred stated that the Chairman had given notice a few days ago that he would not be present, and had sent no address. Also, there would be no report from the Secretary, who was likewise absent. He asked the members to excuse the irregularities that might occur in the program. A number of papers had not been received until this afternoon.

Continuing, the Acting Chairman said he wished to repeat what he had said last year, that the system of arranging the program for this Section was wrong. He thought the present circumstances justified the position he had taken. It was the custom to accept papers up to the last minute before the Section was called to order, and there could be no definitely outlined program on that account. No one knew before coming to the meeting what papers or subjects were to come before the Section. Therefore, it seemed very desirable to include in the By-Laws some provision which would necessitate the titles of papers, at least, being in the hands of the Chairman or Secretary of the Section at some definite date before the meeting; and further, that the papers complete should be in the hands of the Chairman or Secretary before the meeting of the Association.

After this explanation, the Chair stated that the first order of business would be the reports of standing committees, and the first of these was the Committee on Drug Reform. This report was presented by Chairman L. E. Sayre. (See September Journal, p. 1029.)

Mr. Sayre said that Mr. Schneider had sent to him recently some suggestions, which, with the permission of the Section, would be added to the report.

The Chair called for action, and H. H. Rusby, duly seconded, moved to receive the report, to take the usual course.

Prof. Rusby said it had occurred to him there was one way by which the evil of uninspected drug stocks could be reached. Nearly all the drug statutes gave the administrators of the law the right to enter places where medicines were kept for sale and take samples; and if it appeared that these medicines were there for the purpose of being sold, prosecution could be had just as if they had actually been sold and seized in the process. One difficulty was that the supply houses

* Papers and reports not appearing here will be printed separately.

did not keep these drugs under their proper names. Tincture of Belladonna deficient in strength was not sold as such, but under a number, and the physician ordered by that number. But there was in the Federal statute a very important clause which was overlooked by a great many people, and that was, that they were liable to punishment for having in their possession anything which was an imitation of a product of the Pharmacopoeia. If it was clear that it was an imitation, and was intended to be, that person could be prosecuted and punished. That was a very important provision, and he thought it would be well for the States to follow that law in enacting similar legislation.

R. H. Needham, of Texas, asked Dr. Rusby what he would do concerning the strength of certain specific tinctures, like belladonna and veratrum viride.

Dr. Rusby responded that it was supposed that anything of this sort was an entity in itself. Certain people wanted these things. But if the tincture of veratrum viride, for instance, was only half strength, — say 56 per cent. or 33 per cent., — it would be clear that it was a fraudulent imitation, and that person could be punished.

Mr. Gordon stated that there was a homoeopathic pharmacopoeia which was recognized by homoeopathic practitioners as official just as was the United States Pharmacopoeia by allopathic physicians. The homoeopathic standards of strength were based on definite standards of their own just as are the U. S. P. standards. For example, the so-called "mother tincture" of a drug was required to be made from the green, or fresh, drug, but to secure uniformity of strength it was directed that the fresh drug used be first dried to a constant weight and the amount of moisture contained in it thereby estimated, then the tincture should be made from such a proportion of the fresh drug as would correspond with the required percentage of dried drug in the finished preparation. Belladonna was mentioned as an example; some belladonna leaves containing more moisture than others, so that a given weight of one sample of green leaves would contain more water than another sample and hence the tincture made from them by weight would not be of the standard strength. The same standard was set for other preparations derived from vegetable drugs, that is, while the alkaloidal strength was not required to be determined the proportion of plant moisture was, this being very necessary in the case of fresh, succulent plant drugs. The question of the value of such standards was not discussed by Mr. Gordon, the purpose of his remarks, he said, being solely to bring out the point in discussion, that the homoeopathic physician had authoratative standards for his preparations.

In reply to a question from Mr. Scoville as to the legal standing of the homoeopathic pharmacopoeia Mr. Gordon replied that it was his impression that it was the legal standard for homoeopathic preparations in the State of Pennsylvania, just as was the U. S. P. for allopathic preparations, but could not state this positively. He said that the pharmacopoeia to which he referred was issued and sanctioned by the American Institute of Homoeopathy, a body which had a relation to this standard very much like the American Pharmaceutical Association has to the National Formulary. He also mentioned that there is another homoepathic pharmacopoeia issued by one of the oldest manufacturers of homoepathic preparations, in fact the two books might be compared to our own two "dispensatories," both being guides to the physician and pharmacist.

Prof. Sayre said he did not think it would be wise to discuss this paper at great length, as the whole afternoon could be occupied with it. As he remembered, the Federal law contained a paragraph to the effect that any drug or medicine not official in the United States Pharmacopoeia or in the National Formulary should conform to its own standard; meaning by that that if the manufacturer put out, for example, an elixir of belladonna, that must have at least belladonna in it; and there should be, and it was possible to have, a standard fixed for a great many of these unofficial preparations. Whether in the National Formulary or not, that was the spirit of the administration of the State Food and Drugs Law in the State of Kansas. They claimed that even though the preparation was not official in the Pharmacopoeia, or in the National Formulary, the preparation should have some sort of standard of its own — even patent medicines. They considered that if they found any patent medicines showing a very evident deterioration which could be determined, then it did not come up to its own accepted standard. If any tincture not mentioned in the U. S. Pharmacopoeia should be put on the market, that tincture should have in it the things it claimed. Mr. Sayre said he had been guarded in presenting any recommendation. He thought the Chairman of the Section should put to a vote whether this report on Drug Reform met the approval of this Association. If not, then the influence of this committee was practically null and void.

Prof. Schneider requested leave to present a supplemental report. The Chairman of the committee, himself and other members, were satisfied that the subject was an enormous one, and the ramifications almost infinite; that the different sources and different conditions that were responsible for the situation were so numerous that it would be simply impossible to consider them at one meeting, or any number of meetings. The suggestions he had to make here might be looked upon as a summary of the situation that his committee had presented up to the present time. He then proceeded to read the following:

SUGGESTIONS ON IMPROVING THE DRUG SITUATION IN THE UNITED STATES.

ALBERT SCHNEIDER.

The following brief statement is submitted as a supplement to the report by Prof. L. E. Sayre, Chairman of the Committee on Drug Reform.

As already stated by Professor Sayre, it would appear as though the committee has accomplished little or nothing in the way of actual results, as far as the drug situation in the United States is concerned. We have, however, collected very valuable information and data regarding conditions as they exist in the drug business—national, state, and local—wholesale and retail.

The examination of drugs imparts a considerable actual experience in the growing of drug plants, and has convinced the writer that due allowance must be made by officials empowered to administer the national and state drug laws for reasonable variation in the quality and appearance of crude vegetable drugs. It has also become evident that the purity rubric of the U. S. P. is far from satisfactory and that the methods of drug assay and testing must be modified and improved. It is furthermore evident, as has been emphasized in previous reports of this committee, that drug work (in national as well as in state laboratories) is neglected or side-tracked for the food work. This is certainly the case on the Pacific Coast. Most of the men in charge of Federal and State pure food and drugs laboratories know little or nothing about drugs, which explains why much of the drug work outlined and directed by them has no special value as far as the correction of the existing evils are concerned. There is yet another factor which should receive our serious consideration. There are

certain conditions governing the quality and purity of drugs which evidently cannot be modified and corrected by either Federal or State legislation. These can be suitably met by the proper city,town, county and other local regulations, rules and ordinances, assisted by local educational propaganda, but such efforts should be uniform and widely operative within the United States.

The above statements are based upon observation and study extending over a period of five years and more. Some of the details and results of these observations have been published in the Proc. A. Ph., A., and in the pharmaceutical journals.

The following recommendations are based upon the foregoing and submitted for consideration and action:

(1) That the A. Ph. A. urge immediate cooperation between the Revision Committee of the U. S. P., the Division of Pharmacology of the U. S. Public Health and Marine Hospital Service, the Bureau of Chemistry of the U. S. Department of Agriculture, and the Scientific Section of the A. Ph. A. for the purpose of bringing about the most satisfactory additions and changes in the methods of drug assay and drug examination to be embodied in the forthcoming editon of the U. S. P.

While this is being done in a measure, it is, nevertheless, believed that a prompt and more efficient cooperation of this kind will make the U. S. P. a more valuable standard of quality and purity of drugs and less liable to miscomprehension by judge and attorney.

(2) That the A. P. A. urge upon the Bureau of Chemistry of the U. S. Department of Agriculture a more equitable administration of the food and drugs division of the national pure food and drugs law, and that more attention be given to drug work in some of the Federal laboratories.

(3) That the attention of the Bureau of Chemistry be called to the importance of efficient import and interstate inspection and examination of drugs, particularly in the western and southern sections of the United States.

(4) That the A. Ph. A. urge a better cooperation between Federal and State pure food and drugs laboratories.

(5) That a more uniform and efficient administration of the pure food and drugs acts of the several States be urged.

(6) That the A. Ph. A. formulate a plan for local propaganda in bringing about a betterment in the drug situation.

(7) That the A. Ph. A. appoint a committee which shall draw up a detailed plan of action according to the preceding suggestions.

In endeavoring to carry out such a plan some disappointment in the attainment of results must be expected, but the educational value of such activities is considerable.

The Chair then put the vote upon the motion to receive the report, together with the supplemental report, to take the usual course, and it prevailed.

John M. Francis said all admired the initiative which had been taken by the great State of Kansas, from which so many good things came. There was perhaps no question that confronted the Association that was a greater source of friction, dissatisfaction and discussion, than the one presented today. The report of this committee might practically be divided into two sections—first, those things of general consideration, treated by Mr. Schneider; second, and perhaps more important, that part treated of by Mr. Sayre, referring to the proper inspection of drug stocks in the hands of dispensing physicians. It seemed to him that the Section had three courses open to it: First, it might accept the report of the committee, and in the usual way have it embodied in the Proceedings. Second, it might endorse this report as a Section, and refer it to the Council, with the recommendation that it ask the American Pharmaceutical Association to endorse the report and the sentiments therein expressed. Third, it might go a step further, and ask the American Pharmaceutical Association, through the Coun-

cil, to place itself on record, not only as approving this proposed reform, but also to present it to all the various State Pharmaceutical Associations throughout the Union, asking them to take it up and continue this good work. There were three clear-cut courses to be pursued, two of them calculated to accomplish something — though calculated, perhaps, to create dissension between the two professions.

Mr. Needham suggested that Dr. Francis embody in a motion one of the several suggestions he had made.

Dr. Francis said that if it would help to crystallize the sentiment of the Section he would offer a motion to the effect that the Scientific Section of the American Pharmaceutical Association recommend that the Council of the Association present this issue to the Association as a whole, for its commendation.

Mr. Needham seconded this motion.

Dr. Francis, continuing, said his idea was, that this Section, through the Council, should present to the Association the sentiments expressed in this report made by Mr. Sayre, commending the recommendation that steps should be taken throughout the various States of the Union, whereby the stock of medicines in the hands of physicians should be subjected to the same legal supervision as those in the hands of druggists.

Prof. Vanderkleed seconded this motion, and said that in his opinion no more important action could be taken by the Association than this—not only with regard to the physician's stock, but looking to uniformity in the administration of food and drug inspection in the various States.

The Chair thereupon put the vote on the motion of Mr. Francis, as seconded and amended by Mr. Vanderkleed, and it was carried.

The Chair stated that the next report in order was that of the Committee on Drug Market, and that as Chairman E. L. Patch was not present, it would be read by the Secretary, which was done.

The Secretary also read a supplemental report, sent in by another investigator, but not received in time to appear in the regular report.

The reports were discussed by Messrs. Rusby, Puckner, Eldred, Gordon, Francis, Schneider, Vanderkleed and Sayre.

Mr. Sayre moved that the report be received and edited as suggested by Mr. Rusby. (Discussion will appear with the report.) Mr. Francis seconded this motion, and so did Mr. Scoville.

The Chair put the vote on the motion to receive the report of the Committee on Drug Market, after proper amendment by Mr. Rusby along the lines suggested in the discussion, and the motion prevailed.

The Chair said the next order of business was the report of the Committee on Physiological Testing, and Chairman Houghton not being present, he would ask the Secretary to read it.

Mr. Asher suggested that it had been the custom in the past to read these reports by title, and he thought the Section ought to get down to the reading of papers.

The Chair said that this report was of a little different character than the others, was brief, and was a scientific matter. It was a committee more properly entitled to report to the Section than any other committee, and he thought the report might be read in full.

The Chair called on the Secretary to proceed with the reading of this report, which he did.

The Secretary explained that there were two papers accompanying the report of the committee, one on the assay of cannabis sativa, the other one the blood pressure raising principle of the suprarenal glands. (This report appears elsewhere in this issue.)

Prof. Vanderkleed moved to receive and approve the report of the committee, and that the recommendation that the committee be empowered to cooperate with the Public Health and Marine Hospital Service and the Hygienic Laboratory be concurred in, and that it be declared the sense of this Section that this committee be continued. This motion was seconded by Mr. Asher and carried.

The Chair stated that this completed the reports which were to come before the Section, and the next order of business was the appointment by the Chair of a Nominating Committee to report the names of two candidates for each of the following offices: Chairman, First Vice-Chairman, Second Vice-Chairman and Secretary. This report was to be made at this session, and the candidates for the various offices were to be balloted upon at the last session. As such committee he named Mr. Asher, of New Orleans; Mr. Schneider, of San Francisco, and Mr. Charles Caspari, Jr., of Baltimore.

The Chair stated that the Section would now proceed to the reading of papers, and the first on the program were two by Messrs. Chas. E. Vanderkleed and Paul S. Pittinger.

Before taking up the reading of his paper, Prof. Vanderkleed explained that it had been written by way of carrying out the promise made at the Boston meeting that a series of experiments covering a year's time should be made concerning the susceptibility of the guinea-pig to the heart-tonic group. He did not come before the Section as a special pleader for any particular method, but simply to give the results of these experiments. In the absence of a blackboard, he would simply have to give the summaries, and when the papers were published, the members would have a chance to refer to the tables and judge for themselves as to the conclusions that had been drawn from the results. He then presented in abstract the two papers, "Variation in the Susceptibility of the Guinea-Pig to the Heart Tonic Group" and "Variation in the Susceptibility of Frogs to Ouabain.'

The papers were discussed by Messrs. Sayre, Hamilton, Vanderkleed and Eldred, and on motion were received and referred for publication.

The Nominating Committee presented the following list of nominees to be voted upon at the next session:

For Chairman — Frank R. Eldred, C. W. Johnson.
For Vice-Chairman — Dr. John M. Francis, Linwood A. Brown.
For Second Vice-Chairman — Wilbur L. Scoville, R. H. Needham.
For Secretary — F. P. Stroup, E. G. Eberle.

The Chair announced that the report of the committee would be acted upon at the last session on Thursday afternoon, and on motion the Section adjourned to meet at 10:00 A. M., Thursday, August 22.

SECOND SESSION — Thursday Morning, August 22, 1912.

Acting Chairman Eldred called the Section to order at 10:30 A. M. in the Ordinary on the top floor of the hotel. B. L. Murray, of New York, acted as Secretary, in the absence of F. P. Stroup, who acted in that capacity at the first session.

William Mittelbach, of Boonville, Missouri, was given permission to present a paper by a young man formerly in his service, but now of New York City, Mr. L. N. Sahm, — who, he said, was too modest to put himself forward. The paper was entitled "A Mercury Vapor Lamp for Bleaching."

Mr. Mittelbach exhibited eight samples of oil, four unbleached and four bleached, to illustrate the effect of this treatment, also some samples of colored paper, showing the bleaching of some of them from the sun's rays after several hours' exposure, and others showing the bleaching of like samples after the exposure to the lamp's rays for the same length of time.

There was no discussion of the paper, and it was referred to take the usual course.

L. E. Sayre presented a paper on "Crude Gelseminine and Its Possible Constituents."

There was no discussion of the paper, and it was ordered to take the usual course.

W. L. Scoville then read a paper entitled "On Drug Standards," which was discussed by Messrs. Chas. Caspari, Jr., F. T. Gordon, C. E. Caspari, H. R. Eldred and W. L. Scoville.

The paper was ordered to take the usual course.

Mr. Scoville next presented a paper on "Tincture of Cantharides and its Assay," which was discussed by F. R. Eldred and Chas. Caspari, Jr., after which the paper was ordered to take the usual course.

The Acting Chairman at this point read by title his paper on "A Convenient Method for the Estimation of Albumin in Urine," which was received and ordered to take the usual course.

H. C. Hamilton presented a paper on "The Pharmacological Assay of Pituitary Preparations,"* and one on the "Physiological Assay of Cannabis Sativa," which were received and referred to the Publication Committee.

A. W. Linton then presented a paper entitled "Reports on Some Commercial Samples of Drugs." This paper was referred to take the usual course.

In the absence of the writers, the following papers were read by title and referred for publication:

"An Outline of Micro Analytical Methods in Pure Food and Drug Laboratories," by Albert Schneider.

"A Note on the Keeping Quality of Volumetric Potassium Hydroxide Solution," by A. H. Clark.

"The Oleoresin of Pseudotsuga taxifolia," by O. A. Beath and Edward Kremers.

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* See October Journal, p. 1117.

"The Ash Standard," by E. L. Patch.

"Purity of Chemicals and Drugs," by H. Englehardt.

"The Quality of Drugs," by W. A. Pearson.

"The Assay of U. S. P. Chemicals," by F. X. Moerk.

"A Few Drugs and Preparations submitted to the U. S. P. Quantitative Tests," by F. J. Wulling.

"The Production and Valuation of Belladonna in Minneapolis," by Manley H. Haynes and E. L. Newcomb.

"The Adulteration of Cascara Sagrada," by F. A. Miller.

"Tentative Standards for Some Biologically Standardized Drugs," by Chas. C. Haskell and Chas. R. Eckler.

"Ergot and Its Active Principles," by H. H. Dale.

"Guaiacol and Creosol Acetic Acids, and Some of Their Derivatives," by A. R. L. Dohme and H. Englehardt.

"The Electrolytic Determination of Some of the Zinc Salts of the Pharmacopoeia," by Joseph Rosin.

"Estimation of Iron in Reduced Iron," by O. E. Winters.

"Remarks on the Assay of Pepsin and Its Preparations," by L. Henry Bernegau and Leo H. Glickman.

"The Saponification of Fixed Oils Without Heat," by G. N. Watson.

"A Modification of the U. S. P. Assay Process for Opium Preparations," by S. L. Hilton.

Amendments to the By-Laws were proposed as follows:

Section V, Article 7. Change "a tentative" to "the".

Section V, Article 5. Add "The Secretary, at least two months in advance, shall write to each member of the Section, giving notice of the latest date upon which papers can be accepted for the program.

Section IX, Article 3. Omit "but in no instances shall a paper be presented by any one other than its author."

Section IX, Article 4. Add "but all such discussion shall be confined to the paper or subject under consideration at that time."

The proposed changes were discussed by Messrs. Becker, Gordon, Eldred and Havenhill.

The Section then adjourned to meet at 3 P. M. for election of officers and voting on proposed changes in By-laws.

THIRD SESSION — Thursday Afternoon, August 22, 1912.

The third session of the Section on Scientific Papers was called to order in the Ordinary, on the eighth floor of the Brown Palace Hotel, at 3:35 P. M., with Mr. Eldred as Acting Chairman, and Mr. Stroup as Acting Secretary.

Acting Secretary Stroup read the minutes of the two previous sessions and the Chair stated that if there were no corrections the minutes would stand approved as read, and it was so ordered.

On motion, by Albert Schneider, seconded by C. Caspari, Jr., the amendments

to the By-laws, proposed at the morning session, were adopted; so that the amended articles now read as follows:

Section V, Article 7. The Secretary shall arrange the program for the annual meeting and furnish the Editor of the JOURNAL of the Association the program for inclusion in the number just preceding the annual meeting.

Section V, Article 5. The Secretary shall keep a record of the proceedings of the Section, shall send to the members such notice as the business of the Section may require, shall transmit to the General Secretary the names of the officers and committees elected or appointed, and notify the General Secretary of any changes in the personnel of the officers or committees of the Section, and shall furnish the General Secretary a report of the sessions held at the annual meeting. The Secretary, at least two months in advance, shall write to each member of the Section, giving notice of the latest date upon which papers can be accepted for the program.

Section IX, Article 3. Fifteen minutes shall be allowed for the reading of the paper. If the paper is too lengthy to be read in detail within the space of time, it shall be presented in abstract.

Section IX, Article 4. Each speaker in the discussion of a paper shall be allowed five minutes, but all such discussion shall be confined to the paper or subject under consideration at that time.

The Chair called for the election of officers as the final order of business before the Section. Messrs. Scoville and Asher were appointed as tellers to count the vote.

The Secretary read the list, a vote by ballot was taken, and the tellers, after a tabulation of the vote, anounced that the following had been elected officers of the Section for the ensuing year:

For Chairman — Frank R. Eldred.
For Vice-Chairman — John M. Francis.
For Second Vice-Chairman — Wilbur L. Scoville.
For Secretary—Freeman P. Stroup.

The Chair said that there was no other business before the Section, and a motion to adjourn would be in order.

J. M. Francis said that before the Section adjourned, he wished to call attention to the fact that a very interesting and important joint session of the Committees on U. S. Pharmacopoeia and National Formulary was to follow this session immediately, and expressed the hope that all those present would remain for that meeting. The Chair accentuated this request, by reminding the members that the session immediately to follow was really a joint session of this Section with the two committees named, and this was all the more reason why the members should remain.

Thereupon, upon request of the Chair, the Secretary read the minutes of the session now closing, and the same were adopted as read.

Upon motion of Mr. Francis, the Section then adjourned.