

facture of a product. Instead of trying to drag information out of the manufacturer, the method now used is to call for a hearing at a conference of all parties interested. After a sufficient time is given to discuss and ventilate the subject from all points of view, the manufacturers are asked to draw up in writing their conclusions and these are reported to the Chairman of the Sub-committee. This does not prevent any manufacturer from objecting to the report of the conference, for he has the right to present his views in order that the Chairman of the Sub-committee may hear and consider the dissenting opinion. The tests are then to be passed upon by the Executive Committee and submitted to the General Committee of Revision. While it is understood that the Pharmacopoeia Committee is not bound by the action of the conference of manufacturers, the practical result is that before the book is issued the fullest information is before the Committee. In addition to this, all changes from the Eighth Revision of the book in tests or standards will be published in the pharmaceutical and chemical journals and communications sent to the Chairman will be referred to the proper Sub-committee for due consideration. It is believed that by this simple method errors will be avoided and the manufacturer will have ample time to arrange his stock before the date fixed for the new Pharmacopoeia to go into effect. There will undoubtedly be differences of opinion on some of the details and manufacturers will find fault with some of the standards or tests. But as compared with the previous methods of revision, it must be admitted by all that the new method will have a tendency to lessen the number of complaints which have been made heretofore under the old plan. No originality, of course, can be claimed for this plan, for it is based upon similar methods adopted by Legislatures, the United States Congress and other bodies. Of the hearings which have been had, when a manufacturer proposes to make some changes which will favor his own product only, counter-propositions are made by the others and a frank discussion is held. In most cases a test has been proposed which can be reasonably followed by all reputable firms. Before the book is issued, the Government tests and standards will be subjected to conference conclusions and the results of the analyses of Government and State chemists will be brought into harmony, if possible, for there should be no conflict of standards. The dishonest, careless manufacturer cannot expect consideration for it is believed that the courts will rule with greater stringency than ever, but the standards must be upheld.

The Food and Drug Laws have vastly improved the quality and purity of chemical substances and this work of improvement must be continuous and no retrogression should be promoted. The purity rubric system inaugurated in the present Pharmacopoeia will be continued and of course some changes will be made raising the quality of the official products. From correspondence from several sources, it appears that the rubrics are not thoroughly understood. In every case, the rubric fixes the minimum requirements and the words "not less than" are used. A manufacturer can improve his product to any extent that he desires. If the Pharmacopoeia requires that a chemical shall contain not less than 99 per cent of product, he can sell a 100 per cent product and get all the commercial advantage that he wishes, but he is restrained from selling a 98 per cent product. The tests which are obtained are based upon the percentage contained in the rubric.

Up to the present time 673 articles out of 853 have been reported upon to the Executive Committee and are ready for submission to the General Committee. The remainder of the articles are nearly ready for a tentative hearing. These, of course, are all subject to comment and criticism and it is because of this fact that the Chairman cannot fix a date for the issue of the book. It all depends upon how much of the work of the Committee must be revised and what the changes are to be.

Obviously, no one can even guess at the amount of time which will be required to adjust all conditions, but it is not likely that many changes will be asked for.

The following table shows the number of pages of official Bulletins, Letters, and Circulars issued by the various Sub-committees and Committees, although the 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.

SUB-COMMITTEE BULLETINS		Pages
No. 1—Scope.....		288
No. 2—Therapeutics, etc.....		166
No. 3—Biological Products, etc.....		80
No. 4—Botany and Pharmacognosy.....		252
No. 5—Inorganic Chemistry.....		430
No. 6—Organic Chemistry.....		797
No. 7—Proximate Assays.....		270
No. 8—Volatile Oils.....		89
No. 9—Fluid and Solid Extracts.....		345
No. 10—Waters and Spirits.....		313
No. 11—Syrups and Elixirs.....		260
No. 12—Cerates and Ointments.....		62
No. 13—Miscellaneous Galenicals.....		177
No. 14—Tables, Weights, and Measures.....		75
No. 15—Nomenclature.....		58
Executive Committee Letters.....		1763
General Committee Circulars.....		847
Total.....		6272

As stated above, the proposed text for 673 articles has been before the Executive Committee. These articles, after consideration by the Executive Committee, are being presented in redrafted form to the General Committee of Revision for comment. All remaining articles for the text are in the hands of the Sub-committees and their revision is being rapidly pushed to completion. The General Article on Proximate Assays and a number of the assay processes for vegetable drugs have been submitted. A report on Average Doses has been made. Practically all of the Tables for the Appendix are before the Committee. A full report on Diagonstical Reagents and Clinical Tests has also been made.

1832 PINE STREET,
PHILADELPHIA, PA.

DIVISION OF INDUSTRIAL CHEMISTS AND CHEMICAL ENGINEERS, AMERICAN CHEMICAL SOCIETY

MILWAUKEE MEETING, MARCH 24-27, 1913

The Industrial Division met at Marquette University, Milwaukee, Wis., March 26 and 27, 1913, with vice-chairman George P. Adamson presiding and S. H. Salisbury as acting secretary.

The minutes of the Washington meeting were read and approved as also were the minutes of the meeting of the Executive Committee.

The report of the Committee on Standard Specifications and Methods of Analysis was read by the secretary and accepted.

The following committees made no report: Analysis of Soap Products and Glycerine; Research Problems; Definition of Trade Terms; Special Compounds; Professional Code of Ethics; Publicity.

There being no further business to come before the division, the reading of the papers was proceeded with as follows:

1. **Analysis of Glucose and Starch Sugars.** EDWARD GUEDEMAN.
2. **The Training of the Fermentologist.** CARL A. NOWAK.
3. **The Training of the Technical Chemist.** JOHN S. STAUDT.

This paper provoked a very lively discussion in which the following members took part: Messrs. Parsons, Comey, Parr, Staudt, McCoy, McCormack, Gray, Frary, Brady and others. The points discussed were the salaries which graduating chemists are able to obtain in starting work and the feasibility of

students getting practical work during summer vacations.

4. **The Determination of Zinc in Treated Ties.** FRANCIS C. FRARY AND M. GORDON MASTIN.

Discussed by Mr. Salmon, Mr. Wallace and others.

5. **Preliminary Report upon a Practical Accelerated Test for Paints and Varnishes.** A. M. MUCKENFUSS.

6. **Concrete Analysis.** OTTO M. SMITH.

7. **Fuller's Earth—Its Occurrence, Mining, Preparation, Use and Recovery.** CHARLES L. PARSONS.

8. **The Uranium, Vanadium and Radium Situation.** CHARLES L. PARSONS. This paper was followed by a talk by Dr. Moore, of the Bureau of Mines, who discussed the occurrence of the uranium ores and the outlook for the production of radium in this country.

9. **Coal Ash.** S. W. PARR.

10. **The Specific Heat of Coal and its Relation to the Presence of Combined Water in the Coal Substance.** HORACE C. PORTER AND GUY B. TAYLOR.

11. **A Simple Gasoline Gas Generator for Sulfur Determinations.** C. E. WATERS. Read by Mr. Tuttle.

12. **Determination of Sulfur in Illuminating Gas.** R. S. MCBRIDE AND E. R. WEAVER. Read by Dr. Hildebrand.

13. **The Determination of Sulfur in Ammonium Sulfate with Special Reference to the Determination of Sulfur in Illuminating Gas.** R. S. MCBRIDE AND E. R. WEAVER. Read by Dr. Hildebrand.

The Thursday morning session was devoted to a general experience meeting. Dr. Hildebrand gave an informal talk on platinum and the work of the Platinum Committee which was afterward discussed by P. H. Walker, S. W. Parr, A. D. Little and C. L. Parsons, particular stress being laid on the restriction of the use of platinum in the jewelry trades.

Mr. Hess asked for information as to why arsenious oxide in storage should be injurious to the health of workmen. Dr. Sy replied that it might be due to the formation of arsine as a result of bacterial action.

Mr. A. D. Little and Mr. G. P. Adamson discussed the increased use of saltcake in the manufacture of paper pulp and its probable effect on the available supply and price.

Mr. Bennet desired information as to the construction of furnaces for the reduction of barium sulfate for the manufacture of lithophone.

Dr. Staudt and Mr. Gray discussed gasoline as to the future available supply and tendency of the price.

A. D. Little described several devices used in his laboratory in connection with analytical work.

Dr. Bancroft talked on cellulose analysis and Dr. J. C. Hartzell discussed the abuse of the bodily organs by solids dissolved in water.

The chairman spoke of the financial condition of the section and requested the secretary to write to each member of the division asking for a voluntary contribution of one dollar and also to make requests for more papers for the meetings of the division.

MEETING OF THE EXECUTIVE COMMITTEE

The Executive Committee of the Division of Industrial Chemicals and Chemical Engineers met, March 26, 1913, and elected S. H. Salisbury, Jr., to fill the vacancy caused by the resignation of F. E. Gallagher.

S. H. SALISBURY, JR., *Secretary*

DIVISION OF FERTILIZER CHEMISTRY. AMERICAN CHEMICAL SOCIETY

MILWAUKEE MEETING, MARCH 24-27, 1913

Meeting called to order by the chairman, Mr. Rudnick. On motion it was decided to proceed to the program:

A Simple Method of Preparing Neutral Ammonium Citrate Solution. ANDREW J. PATTEN.

On motion, the work on ammonium citrate was referred to the Phosphoric Acid Committee, with a request that they bring the subject before the A. O. A. C.

On motion the Phosphoric Acid Committee were requested to confer with Dr. J. H. Hildebrand in regard to working out

a practical method for determining Neutral Ammonium citrate and Phosphoric Acid compound by hydrogen electrode.

REPORT OF COMMITTEES

The Committee on Nitrogen. PAUL RUDNICK, *Chairman*

This committee has prepared a sample of commercial nitrate of soda for coöperative work. Some work has been done by the committee on the analysis of this product, chiefly by the official modified Gunning and Kjeldahl methods. This work is not quite completed, but it is expected that the sample will be ready for distribution for coöperative work outside of the committee very shortly and that a report on this work will be ready for the next meeting. Report accepted.

The Committee on Potash. J. E. BRECKENRIDGE, *Chairman*

The committee report was accepted and is published in full in this issue. The matter of the attitude of the government on the distilling of denatured alcohol for laboratory work was referred to the Committee on Potash, with instructions to obtain a formal government ruling on the proposition as applied to this work.

The Committee on Phosphate Rock. F. B. CARPENTER, *Chairman*

The Committee on Phosphate Rock had done no coöperative work since the last meeting of the division, and had, therefore, nothing to report relative to past investigations.

Mr. Hagedorn, Chairman of the Sub-committee on Phosphoric Acid, is preparing a sample of phosphate rock to be sent out for further study of methods of analysis, including determination of phosphoric acid, iron and alumina and moisture.

The committee has received a number of requests from chemists interested in phosphate rock, for a standard sample of this material. In response to these requests, the committee has decided to adopt as a tentative standard, a sample of phosphate rock on which a large number of results have been obtained in coöperative work by members of this division under the direction of the committee. The average results obtained in this coöperative work will be furnished with this sample and while these results may not be absolutely correct, yet they are undoubtedly very close to the truth, as they represent an average of the best results obtained, most of them from analysts specializing in this line of work, with the elimination of obviously erratic results. This standard should serve to bring about a greater uniformity in results, both by enabling those interested to check the work on analysis, as well as by enabling the individual analyst to check his own work with a sample of known composition. Samples may be obtained from Mr. C. F. Hagedorn, Armour Fertilizer Works, Union Stock Yards, Chicago, Ill., by enclosing 25 cents to cover cost of packing, mailing, etc.

Report was accepted. On motion the meeting adjourned.

J. E. BRECKENRIDGE, *Secretary*

REPORT OF COMMITTEE ON POTASH. FERTILIZER DIVISION. AMERICAN CHEMICAL SOCIETY

MILWAUKEE MEETING, MARCH 24-27, 1913

The Work has been mapped out as follows:

I. To compare results with denatured alcohol as found in the trade with results with pure alcohol as usually used for potash determinations.

II. Official Method for mixed fertilizers as applied to potash salts.

Samples to be analyzed were:

1. High-grade sulfate potash.
2. Muriate potash.
3. Kainit.
4. Complete fertilizers about 10 per cent. K_2O .

Work to be done was:

- 1st Test 1, 2, 3, 4, by regular official method.
- 2nd Test the same by regular official method, using denatured alcohol instead of pure alcohol.