

SECTION ON HISTORICAL PHARMACY, AMERICAN PHARMACEUTICAL ASSOCIATION.

ABSTRACT OF THE MINUTES OF THE SESSIONS HELD IN THE CITY OF WASHINGTON, MAY 8, 1920.*

The Section on Historical Pharmacy, A. Ph. A., held only one session in Washington, May 8, at 9.30 A.M. All of the officers were present.

Chairman W. O. Richtmann presented as his address,

A HISTORY OF THE CULTIVATION OF MEDICINAL PLANTS IN THE UNITED STATES.

BY W. O. RICHTMANN.

The majority of persons who are interested in one way or another in crude drugs of vegetable origin, in view of their experience during the past five years, are undoubtedly of the opinion that general and particular interest in the cultivation of the plants from which crude vegetable drugs are obtained is, comparatively, a new field, of quite recent development. Articles discussing the general field and also individual plants have appeared frequently after 1900 and, especially, since 1910. It appears, however, that the subject is an old one, and has only been more directly called to our attention as a result of the shortage of these products during most of the above mentioned period. It is not the first time that such an interest along this line has been aroused. Owing to the more generally disturbed conditions throughout the civilized world, a greater and more wide-spread interest has developed than had occurred at any previous time.

Shortly after the first European settlers came to America they interested themselves in the propagation of plants they had been familiar with in Europe, and had collected there. Natural sources of supply were no longer available, so an artificial supply was attempted.

A number of European plants of medicinal interest which have become naturalized, more or less generally, undoubtedly owe their presence here to this cause. Later on efforts along these lines became more general, and were made not only to supply individual and local needs and demands, but also to supply those of the country generally, and even those of Europe, to as great an extent as possible.

Early in the history of Georgia, a botanist was appointed to study the plants, native to that colony and vicinity, that might be of economic interest from a standpoint of timber, cordage, fabric, food, or medicine, and also those of other regions that might be successfully introduced. The work was started, but the man engaged for the work died before any tangible results were obtained. The available records do not indicate that the work was again taken up.

Various members of the Apothecaries Society of London were active in obtaining from and sending to individuals in the colonies medicinal plants and seeds. Records of a number of such exchanges with John Bartram, of Philadelphia, are available.

Probably one of the most elaborate plans along this line was that of John Ellis, a fellow of the Royal Society and the agent for West Florida, who, in 1769, published a "Catalogue of Plants that may be useful in America." This list comprised eighty-two different plants, practically all of which are of medicinal interest. Thirty-seven of them yield official products of U. S. P. IX, and four of the plant products are official in the last revision of the National Formulary, making a total of forty-one or 50 percent, for which there are legal standards at the present time. Many of the remainder of the listed plants yield products that are of commercial importance to-day. It is probable that the above-named catalogue was compiled at an earlier date, as Ellis was appointed agent for West Florida in 1764. The list is to be found in William Stork's introduction of the fourth edition of *John Bartram's Journal*. In 1770, Ellis published "Directions for bringing over seeds and plants from the East Indies and other distant countries in a state of vegetation; together with a catalogue of foreign plants worthy of being encouraged in our American Colony." This was probably one of the earliest steps taken along the lines of our present seed and plant introduction work of the U. S. Department of Agriculture.

* Papers presented before this Section will, hereafter, be printed apart from the minutes. It is understood, unless otherwise stated, that the papers were referred to the Publication Committee.

Various plants, of greater or less medicinal interest, were under cultivation elsewhere in the colonies, even at that early date. Oranges, especially the bitter orange, had been introduced by the Spaniards in Florida early in the 16th century, and by the English, in Georgia and South Carolina, early in the 17th century. Previous to 1750 oranges were exported from South Carolina.

Sesame was grown, and oil produced from it, in South Carolina in 1730. Twenty to twenty-five bushels (of 52 lbs. each) of seed were produced to the acre. The seed yielded 43% of expressed oil.

The indigo plant was introduced into the southern colonies at an early date, and indigo was successfully produced in South Carolina for a number of years during the middle of the 18th century.

Cotton-seed oil was produced at Bethlehem, Pa., in 1768, by the Moravian Brethren, from seed grown in the southern colonies. Sunflower-seed oil was produced at the same time from seed grown there by these brethren.

Spanish saffron was being cultivated near Philadelphia and Lancaster, Pa., as well as Salem, N. J., at the time of Peter Kalm's visit in 1748 and 1749.

The opium poppy was cultivated in Pennsylvania by H. Marshall for the production of opium as early as 1781.

It will be observed that practically all of the above mentioned plants are not native to the United States. Their introduction into this country necessitated their cultivation. That similar consideration should be given our native plants, used for medicinal purposes, was known at an early date is evident from the fact that the cultivation of ginseng was advised as early as 1784. Our commerce with China had started only the year before, with only ginseng and silver. Samuel Shaw, our first consul at Canton and largely instrumental in the development of our early trade with China, specifically pointed out the advantage of making ginseng the chief article of exchange, and that, in order to maintain the supply of this product, it would become necessary to cultivate it, thereby replacing the rapidly diminishing natural source of supply.

It required unusual commercial conditions to call attention to the diminishing supply of crude vegetable drugs obtained from native plants, and to advise the cultivation of these plants. This occurred during the Civil War. At the 1864 meeting of the American Pharmaceutical Association, John M. Maisch, chairman of the Committee on Drug Market, presented a strong plea for active efforts along the above mentioned lines. No noticeable result, however, was produced as a result of this plea.

In May, 1883, J. W. Colcord introduced the following resolution at the meeting of the meeting of the Massachusetts Pharmaceutical Association: "Resolved, That the committee on legislation be instructed to ask an appropriation of \$25,000 by the next Congress, the same to be used at the discretion of the Commissioner of Agriculture, for the introduction and cultivation of foreign medicinal plants, and for the better protection of indigenous medicinal plants." The resolution was adopted, and the Commissioner of Agriculture at Washington, upon being notified of the action, expressed his desire to carry out the purpose of the resolution as soon as he received the necessary authority.

The same resolution was introduced at the meeting of the American Pharmaceutical Association in 1883 by Mr. Colcord. After some discussion, the matter was referred to the Council with power to act. The Council approved the adoption of the resolution at a meeting in December, 1883. No subsequent record is available as to what happened to the resolution.

George Vasey, botanist, made a report to the Commissioner of Agriculture in 1884, on 18 native plants that were of medicinal or economic interest. Natural supplies of these plants were being continually depleted, because of continued commercial demands. In order to maintain the supply, the cultivation of these plants would, undoubtedly, have to be undertaken.

Prior to this, the forerunner of the Commissioner of Agriculture, the agricultural branch of the Patent Office, had been interested in the introduction of medicinal plants.

After a definite start along the above mentioned lines, the botanist of the U. S. Department of Agriculture maintained a continued interest in the work until in 1901, when the office of Drug Plant Investigations was established. Since that time the work of the cultivation of medicinal plants has developed steadily from more or less isolated and localized efforts to a decidedly broad and comprehensive plan. Work has progressed from merely growing plants and har-

vesting so much raw material to a detailed study of many individual plants, from many different angles. The factors of identity, distribution, propagation, cultivation, harvesting, curing, standardizing, and marketing have each been given due consideration with a fairly large number of individual plants. Additional factors along the lines of breeding, selection, physiology, pathology, and bio-chemistry have also been taken up in a number of individual cases.

Working along practically parallel lines, and at times cooperating with the Federal Department, a number of schools of pharmacy have taken up the work; different phases are brought forward, as the various operators interpret their individual viewpoints. The number and location of such places is now such that a fairly general and representative distribution has been effected.

Another line of the problem has been taken up by a number of firms and corporations, primarily interested in the production of crude vegetable drugs on a commercial scale. Practically all of these representatives realize fully the broad lines along which the problem must be developed. They are proceeding accordingly.

Finally, a number of individuals have taken up various phases of the work. Most of them, however, are profiting directly by the pioneer work of the three previously mentioned agencies. No one directly connected with the work of cultivation of medicinal plants feels that more than a mere beginning has been made. When we realize the vast amount of work that has been accomplished in the development of our general agricultural crops and the hopes that these workers entertain for continued future progress, we are made fully aware that the problem is complex, but it is certainly interesting and well worth our best efforts.

Work has progressed from numerous isolated instances of "jes growin" plants early in the history of our country to present-day instances of what has been said of the grape fruit, "it was a lemon that has had a chance." Many medicinal plants under cultivation in the United States are not only given a chance, but many are having chances placed where the plants will have every opportunity to show their capability of taking advantage of them.

The address was referred to the Publication Committee.

The Historian, E. G. Eberle, presented his report; it was in part as follows:¹

(The omitted portions of the report contain references to papers presented before this Section and commented on in foreign and American publications, some of them not devoted to pharmacy—the papers by Joseph Jacobs and A. W. Linton. Also references to papers of historical interest relating to pharmacy and published in lay press and magazines.)

* * * Since the New York meeting of the American Pharmaceutical Association comparatively few contributions have been made to the Historical Section. Chairman Wilbur L. Scoville has sent a set of the Bulletins of the N. F. IV and page proofs. To this might be added the correspondence of the members of the Revision Committee and like records of U. S. P. Revision could probably be secured. While these have served their immediate purpose, a century hence they will have historical value and interest. Such files, however, take up considerable space, and this is not available at present. Possibly the Smithsonian Institution would be willing to care for such records.

Copies of advertisements of about 1820, a century ago, relating to the drug business and pharmacy, were presented by Prof. J. W. Sturmer. S. L. Hilton has contributed notes from the Smithsonian Institution relating to Physic, Therapy and Occupational Therapy for Wounded Soldiers. Charles H. LaWall has sent in an official invitation to the World's Fair Meeting of the A. Ph. A. in Chicago, with typewritten notes on the back of an outline of a business course by Prof. Joseph P. Remington.

Among the contributions sent in by Treasurer H. M. Whelpley are the following:—A History of the Drug Business in Chicago, written by Albert E. Ebert; letter from John Best and prospectus of New York College of Pharmacy, 1864-5; invitation and program commencement, New York College of Pharmacy, 1865; letters from James G. Steele and W. T. Wenzel, of San Francisco; letter from C. W. Patterson (1912) enclosing sketch of the late Oscar Oldberg; newspaper clippings relating to the "Oldest Drug Store in Davenport, Iowa, owner, life-member John W. Ballard, who had been with the business 54 years."

¹ Complying with the request for condensation of reports, only the parts of the Historian's Report containing records are printed.

Clyde L. Eddy and J. C. Peacock have contributed a number of interesting photos of the New York meeting. Many photographs of members have been sent in, some of them accompanied by sketches, and the historian takes this opportunity of again requesting that all members who have not done so follow their example. The historian preserves clippings, photographs, programs and badges of annual meetings, and each year a list is made for record for the files of the Section.

As far as our records show there have been 31 deaths of members; they are:

Behrens, Emil C. L.	Chicago, Ill.
Bassett, Chas. H.	Boston, Mass.
Bongartz, Ferdinand Alphonse	Jersey City Heights, N. J.
Donaghue, Richard S.	Lowell, Mass.
Downing, Benjamin Franklin	Newport, R. I.
Eckford, Joseph William	Aberdeen, Miss.
Engelhard, George P.	Chicago, Ill.
Gundrum, George	Ionia, Mich.
Hoffman, Miss E. Grace	Philadelphia, Pa.
Jacob, Charles William	Forest Park, Ill.
Joergensen, G. J. C. Sophus	LaConner, Wash.
Josenhans, Rheinhart	Chicago, Ill.
Lentz, Frontis	Baltimore, Md.
Lord, Leon S.	West New Brighton, N. Y.
Maguire, Edward S.	Detroit, Mich.
McKellips, Clarence M.	Portland, Ore.
McNiff, Frank J.	Anthon, Iowa.
Menzies, John W.	Buffalo, N. Y.
Muench, William	Syracuse, N. Y.
O'Gorman, Theophilus V.	Port Townsend, Washington, D. C.
Orr, Edward Emery, Jr.	Revere, Mass.
Patterson, Theodore H.	Chicago, Ill.
Perry, Frederick W. R.	Detroit, Mich.
Pierce, William Henry	Boston, Mass.
Pinter, Edmund D.	Jersey City, N. J.
Purel, Victor Honore	New Orleans, La.
Ryan, Frank Gibbs	Detroit, Mich.
Sieker, Ferdinand August	West Hoboken, N. J.
Stone, Clarence G.	Mount Vernon, N. Y.
Tansey, Owen Hilary	Montreal, Canada.
Tobias, Morris	New York, N. Y.

Of the above, two were members of the Association for 50 years or more, Charles H. Bassett, of Boston, and Theodore H. Patterson, of Chicago. Seven were affiliated for upwards of 25 years—Emil C. L. Behrens, Chicago; Benjamin F. Downing, Newport, R. I.; Dr. Joseph William Eckford, Aberdeen, Miss.; George Gundrum, Ionia, Mich.; Frederick W. R. Perry, Detroit, Mich.; Frank Gibbs Ryan, Detroit, Mich.; and Ferdinand August Sieker, West Hoboken, N. J. All served the Association faithfully, and in conformity with our usual custom to honor the memory of departed members we should stand for a moment in silence.

The Historian has no further suggestion to make at this time, unless you desire to take action on having files of bulletins, proof pages, etc., of the latest revisions of the National Formulary and U. S. Pharmacopoeia, as far as obtainable, filed in the Smithsonian Institution, should they be willing to accept them.¹ Recently we have been made acquainted with the value of our historical records in the Proceedings of the Association whereby the priority of work in colloidal chemistry by our fellow-member, Prof. J. U. Lloyd, was established; so impressed is the authority on the subject that he concludes that our transactions should be used in textbooks

¹ Mr. F. L. Lewton, of the Smithsonian Institution, who was present, stated that such arrangement could be made.

for the general reader. It impresses the thought that we are sometimes slow in placing value on the work of others, and that history lies at the root of all science. Macaulay said, "Facts are the mere dross of history. It is from the abstract truth which interpenetrates them, and lies latent among them, like gold in the ore, that the mass derives its whole value; and the precious particles are generally combined with the baser in such a manner that the separation is a task of the utmost difficulty."

The report of the Historian was received. Mr. F. L. Lewton, of the Smithsonian Institution, was present and spoke of the progress made in arranging medical and pharmaceutical literature and material in the Institution. He also stated that the material referred to by the Historian is acceptable. The Section thanked Mr. Lewton and recommended that efforts be made to collect bulletins, etc., and file them with the Smithsonian Institution, or better, donate them, so as to have a permanent record.

Secretary Curt P. Wimmer reported on his work during the year, preparatory for the program of this meeting. He also read a paper by Miss Adelaide Rudolph on "The Scarabs and Charms of Ancient Times." Various amulets were exhibited. The Secretary was asked to thank Miss Rudolph for her contribution to the program.

Hugo Kantrowitz presented the Section with a menu, printed on silk, which was obtained by him at a banquet given during the meeting in Washington in 1883. The banquet was given at Abner's Hall and an item of "historical" interest is contained in the statement on the menu, "Each person is entitled to a small bottle of Pontet Canet Claret of excellent quality."

The following papers were read:

"Pharmacy and Medicine of Charles Kingsley," by A. W. Linton.

"Reminiscences of Some of the Old Boston Druggists of Fifty Years Ago," by E. L. Patch.

"Development of the Drug Industry in Richland County, Wisconsin," by E. W. Dieter.

"Historical Data of the Naval Stores Industry in the United States," by W. O. Richtmann.

"Early History and Occurrence of Venereal Diseases," by B. E. Hockert.

"A Pharmacist in the Army," by Lewis N. Brown.

"Meeting M. Bouge, Pharmacien De Premiere Classe," by Clyde L. Eddy.

The following were read by title, as the authors were not present:

"The Lititz Army Hospital Pharmacopoeia," by Edward Kremers.

"A New England Drug List of 1676," by Edward Kremers.

"A Pharmaceutical Advertisement of 1795," by Edward Kremers.

"A Century of Pharmaceutical Journalism," by H. P. Reif.

The officers of the ensuing year were installed; they are:

Curt P. Wimmer, New York City, Chairman.

A. W. Linton, Seattle, Wash., Secretary.

E. G. Eberle, Philadelphia, Pa., Historian.

The Section then adjourned.

WOMEN'S SECTION, AMERICAN PHARMACEUTICAL ASSOCIATION.

ABSTRACT OF THE MINUTES OF THE SESSIONS HELD IN THE CITY OF WASHINGTON

MAY 8 AND 10, 1920

FIRST SESSION.

The first session of the Women's Section, A. Ph. A., was convened by Vice-President Mrs. Lyman F. Kebler, May 8, at 9.30 A.M. Mrs. J. Leyden White was named secretary. President Mrs. F. J. Wulling was prevented from attending the meeting on account of sickness.

A telegram of greeting from Secretary Mrs. H. R. Kenaston was read. A letter from Miss Anna G. Bagley was acknowledged by a telegram, expressing regrets for her absence.

The Chairman introduced Mrs. Kate Waller Barrett, President of the National Florence Crittenden Homes and Past President of the National Council of Women, who addressed the Section on the subject of "Organization and Prohibition."

On motion a rising vote of thanks was extended to Mrs. Waller.

The following committees were appointed by the Chairman: