

3. The inclusion of a suitable statement in U. S. P. and N. F. Such a statement should not be hidden, but should appear in a prominent position. *It should also be added under the list of Deletions.* As stated above, the N. F. Committee has already adopted the inclusion of such a statement. Will the U. S. P. Revision Committee follow?

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CHEMICAL CHRONOLOGY.*

BY OTTO RAUBENHEIMER.

"Histories are as perfect as the Historian is wise
And is gifted with an eye and a soul."—Carlyle.

"Pharmacy is the Mother of Chemistry" was the slogan frequently used by such an authority as Dr. Paul Walden, of the University of Riga, in his address before the Section on Pharmaceutical Chemistry of the Eighth International Congress of Applied Chemistry during September 1912 in New York City, of which the writer was acting secretary. Pharmacy, therefore, can be justly proud of her daughter, Chemistry, and pharmacists should continue to take an active interest in this science.

Quite a number of books have been published on the History of Chemistry, of which I will enumerate the principal ones. As usual, Germany leads with the following works:

Kopp: "Geschichte der Chemie 1843."
Kopp: "Beiträge zur Geschichte der Chemie 1869."
Kopp: "Entwicklung der Chemie in der neueren Zeit 1871."
Kopp: "Alchemie in älterer und neuerer Zeit 1886."
Meyer: "Geschichte der Chemie 1888."
Ekecrantz: "Geschichte der Chemie 1913."
Hjelt: "Geschichte der organischen Chemie 1916."
Gräbe: "Geschichte der organischen Chemie 1920."
Färber: "Die geschichtliche Entwicklung der Chemie 1921."

France can boast with the following two masterworks:

Höfer: "Histoire de la Chimie 1867."
Berthelot: "La chimie au moyen age 1893."

Among the works on history of chemistry in Great Britain I will quote the following:

Meyer-McGowan: "History of Chemistry, 1891."
Brown: "History of Chemistry, 1913."
Tilden: "Chemical Discovery and Inventions in the 20th Century, 1916."
Tilden: "Famous Chemists, 1921."
Hilditch: "Concise History of Chemistry, 1911."

In the United States the literature on the history of chemistry is fast developing, especially of late:

* Section on Historical Pharmacy, A. Ph. A., Cleveland meeting, 1922.

- Venable: "History of Chemistry, 1894."
 Smith: "Chemistry in America, 1914."
 Smith: "Chemistry in Old Philadelphia."
 Smith: "Life of Robert Hare, 1917."
 Smith: "James Cutbush, 1919."
 Smith: "Priestley in America, 1920."
 Moore: "History of Chemistry, 1918."
 Harrow: "Eminent Chemists of Our Time, 1920."

I might also mention that an attempt is being made, headed by Professor Edgar Fahs Smith, former provost of the University of Pennsylvania, to establish a Section on History of Chemistry in the American Chemical Society, which we trust will be realized.

Recently the literature on history of chemistry has again been enlarged, in fact enriched, by the publication of a brochure of 67 pages, entitled "Zeittafeln zur Geschichte der Organischen Chemie" (Chronological Tables to the History of Organic Chemistry), by Prof. Dr. Edmund O. von Lippmann, Dr. Ing. at the Technical High School, Dresden, and director of the sugar refinery, Halle. The book is published by the old established firm, Julius Springer, in Berlin. Lippmann is a well-known authority on chemical history, being the author of "Geschichte des Zuckers, 1890," "Abhandlungen und Vorträge zur Geschichte der Naturwissenschaften," 1906 and 1913, "Entstehung und Ausbreitung der Alchemie," 1919, etc. The author is furthermore an active contributor to German chemical and pharmaceutical journals and his name is or should also be known on this side of the "great pond."

The impetus for the compilation of such a chronology of organic chemistry was given to the author by no less an authority than Prof. Dr. Jakob Volhard whose name continues to live as the originator of the thiocyanate titration method for silver, at a meeting of the Hallesche Naturforschenden Gesellschaft in 1905.

Lippmann's intention was not to provide another book on the history of chemistry, but rather to furnish a chronologic table which is readily accessible. The table begins with the year 1500, as previous to that time the precise knowledge of organic chemistry was very meager. In chronological order and in a condensed form the articles are treated in the following manner: Year, Substance, Preparation, Discoverer and Literature. The following few examples will illustrate:

1554. Absolute Alcohol, "aqua ardens absoluta," Cardanus, "De subtilitate" (Köln, 1554, 626).
 1610. Potassium Acetate, dry = terra. foliata, Ph. Müller (Kopp, 4, 341).
 1731. Rochelle Salt, chemistry explained by Geoffroy and Boulduc, Mem. de l'Acad. 124 (Kopp, 4, 351).
 1812. Methyl Alcohol, observed by the destructive distillation of wood, Taylor (Phil. Mag. (1822), 315; Hj., 54).
 1830. Salicin, crystallized from willow bark, Leroux (A. ch., II, 43, 440).
 1890. Fenchon from oil of fennel, Wallach (A., 259, 324).

The chronology ends with the year 1890, which marks the synthesis of glucose by Fischer and the synthesis of indigo by Heumann. From that year the tar barrel and other sources furnished so many organic products that large factories were kept busy day and night. It would require another volume to compile another chronological table beginning 1890.

Let us hope that these "Zeittafeln zur Geschichte der Organischen Chemie" by Professor Lippmann will become better known among pharmacists and chemists in the United States. Let us also hope that they will arouse a little more interest in that much-neglected study of history of chemistry and of pharmacy. And last, but not least, let us hope that someone, a pharmacist, with the necessary time and brains, will write in the future, in the near future, a "Chronology of Pharmacy."

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KANSAS CITY RETAIL DRUGGISTS' ASSOCIATION IS ENDEAVORING TO RID THE DRUG TRADE OF UNDESIRABLES.

C. M. Watson, president of the Kansas City Retail Druggists' Association, states that a strong effort is being made to rid the drug trade of undesirable dealers—who promote sales of alcoholics. "The drug(?) stores referred to do not even comply with the law requiring a registered pharmacist to be in charge of the store at all times," he says.

Sale of drugs is a nuisance to the owners referred to and patrons are in danger when purchasing from them. The public should be made aware of these facts.

EDUCATING THE PUBLIC.

On the occasion of the recent Chemists' Exhibition the Manchester Pharmaceutical Association (England) circulated to the public a neatly printed pamphlet relating to pharmacy and pharmacists. The comment on the sale of poisons closes with the following paragraph:

"How great has been the measure of protection that pharmacists have exercised for so many years for the protection of the public, in this matter of the control of poisons, it is impossible to estimate."

Another paragraph refers to the schools of pharmacy training pharmacists for their duties, bestowing confidence and assuring the public of competency, etc. The pamphlet closes with this statement: "The close and important relationship which the medical

practitioner and the pharmacist have to one another and to the public cannot fail to be appreciated by the latter as a consequence of this Exhibition."

In this connection reference is applicable to the address by Dean William B. Day before the Chicago Branch, A. Ph. A., on the service of schools and colleges of pharmacy. The public should be made acquainted with these facts, and also be impressed that the pharmacist seeks to serve, to protect—that many statements made in the press to the contrary are erroneous and undeserved.

BUREAU OF PUBLIC PERSONNEL ADMINISTRATION SEEKS TO DETERMINE EQUIVALENT OF HIGH SCHOOL OR COLLEGE COURSE.

What constitutes the equivalent of high school or college education will be one of the questions which the Bureau of Public Personnel Administration will try to answer in connection with the employment of city, state and government civil service workers.

The bureau, established by the Institute of Government Research, will be under direction of an advisory board composed of William Gorham Rice, New York Civil Service Commissioner, *chairman*; C. P. Messick, secretary, New Jersey Civil Service Commission; George R. Wales, president, United States Civil Service Commission; Robert M. Yerkes, National Research Council; and Richard H. Dana, president National Civil Service Reform League.