

## History of Pharmacy and Prof. Ernst Stieb, 1929-2015

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A personal look at his contribution to the study of the history of Pharmacy.

### Foreword

I met Ernie Stieb in Wisconsin where I was working on my Ph.D. He was an Associate Professor who had joined the staff following his Ph.D. in the History of Pharmacy at Wisconsin in 1959. He had a joint appointment with the American Institute of the History of Pharmacy 1964-67, the years I was in Wisconsin. During this time my wife did some work with the Institute. My interest in the history of Pharmacy in this context led me to develop a close relationship with him. Based on this I was able to maintain contact with him over the years. Of particular importance to me and the CAHP members was his role in the success of this organization after its initiation by Prof. Pat Paterson of the University of Toronto in 1955.

### Professor Stieb, the Pharmacist

Ernie graduated in Pharmacy from the University of Toronto in 1952. He received his pharmacy license in 1953 and maintained his licensure throughout his career. His period in pharmacy practice was brief as he enrolled in a Master's Program, (pharmaceutics and history of Pharmacy) which he completed in 1955.

As a pharmacist he had the pharmacy insight which enabled him to write a book on the history of the American College of Apothecaries (The American College of Apothecaries; The First Quarter Century, 1940-65) in 1970. The organization honored him for this in recognition of his work.

His major field of study was the adulteration of drugs (Drug Adulteration: Detecting and Control in Nineteenth Century Britain). This was his thesis topic and it was based on the response of the pharmacy organizations in Britain to detect

and deal with adulteration. Britain was the first Anglo American country to systematically attempt to deal with adulteration of food and drugs. Of the two the emphasis was on drugs as the consequences were more serious. His writing on the history of adulteration and the detailed evolution of scientific methods and social changes to deal with adulteration is a comprehensive, insightful and well organized document that would provide pharmacists with a valuable insight into drug quality.

Adulteration of drugs was a common problem over a long historical period. The reasons for adulteration varied and often due to inadvertent mistakes in identifying herbal and mineral substance. More often, however, it was due to the price of the ingredients and their scarcity. Attempts to deal with adulteration primarily took place at the level of imported products and secondarily at the wholesale/retail level. The retail level dealt with pharmacists and it was their organizations that were expected to protect the public. At this time pharmacists compounded most of the prescriptions and were dependent on the quality of ingredients from suppliers. There was also the problem of some pharmacists substituting ingredients, mostly due to cost. The prohibition on substitution in the pharmacy regulations that emerged later prevented substituting one brand of drug for another (This background would later serve him in his work with the Ontario College of Pharmacy.)

In addition to better methods of identifying herbal products using microscopic examination, there was also an emphasis on proper collection and storage to prevent deterioration. Various qualitative methods had been developed to detect adulteration over a long historical period using burning, dissolving, smelling, colour and texture. It was only with the development of chemistry and physics that more scientific methods were able to be used. One of the first such methods was the use of specific gravity (1690) by Boyle. As new science and methods evolved the ability to apply them to adulteration gradually grew until 1820 when the first formal regulatory system was implemented based on the Treatise on Adulteration by Fredrick Accum. Although analysis had a strong application of science it still depended in large part on human senses of smell, taste and vision. An interesting side note is that the science of analytical chemistry was seen as an

industrial procedure and was not considered to be part of academic Chemistry until recently.

The British Pharmaceutical Society was formed in 1841 and pharmacists of that era had limited education in chemistry and there were few textbooks available to bring pharmacists the tools necessary to deal with adulteration. The Pharmaceutical Journal published the development of new tests and these were then incorporated into the British Pharmacopeia which constituted the collected wisdom for many of the newly developed tests and which had a close link to organized pharmacy. The tests were primarily for inorganic materials until the early 1900's when standardized tests for biologicals were developed.

The importance of chemistry was recognized and included in the pharmacy curriculum laboratory that was opened in the Pharmaceutical Society in 1844. This early emphasis on chemistry in the curriculum continued until fairly recent times.

The British Government established laboratories to analyze the quality of foods and drugs as part of the social legislation flowing from the Industrial Revolution. The public laboratories focused on imported products and distributors rather than pharmacists. It was only in the late 1880's that organized pharmacy began a serious program of monitoring the quality of pharmacists' compounded prescriptions. The added pressure on pharmacists to improve quality resulted in raising the level and qualification of pharmacists through education. In 1868 that the Pharmacy Act increased the stringency of measures to deal with adulteration. One of the factors leading to adulteration was the public "rage for cheap medicines" which had a demoralizing effect on the whole drug trade. An observation that is just as true today. Overall, the efforts of the Pharmaceutical Society in dealing with drug trade issues were ineffective but there was a continued effort to maintain public confidence. Other measures by physicians and government were more effective in dealing with adulteration.

In this critical area, the role of pharmacy in attempting to deal with adulteration was well presented by Prof. Stieb and was strongly supported by his knowledge of pharmacy practice and his study of the history of science.

As an academic he was close to the profession of Pharmacy and his involvement in the Ontario College of Pharmacy covered a period from 1970 to 1995. He served on a long list of committees; Committee on Continuing Education, Centennial Committee, Human Subjects Research, and Curriculum. He was also a council member for two years and edited the “Time Capsule” section of the College’s publication, On Continuing Practice.

His interest in pharmacy education and continuing Pharmacy education was reflected in his role with The Canadian Conference on Continuing Education in Pharmacy which extended from 1975 to 1988. He was a member of the council and served on several committees.

He was a board member and a committee member with the Canadian Foundation for Pharmacy, a fund raising organization to advance the profession (originally called the Canadian Foundation for the Advancement of Pharmacy and initiated as a charitable organization to help pharmacists in Britain who had their pharmacies destroyed by bombs in the war). He was particularly active on the Committee on Pharmaceutical Education and Research.

In the 1970’s hospital pharmacy residency programs began grow in Canada especially Ontario. This led to the creation of the Canadian Hospital Pharmacy Residency Board on which he served in an administrative capacity for selection of residents and authorization of grants.

His writing and editorial skills led to his appointment to the Editorial Advisory Board of the Canadian Pharmaceutical Association, 1976-79 and as a consultant to the organization on matters dealing with the history of Pharmacy.

#### Prof. Ernie Stieb as an Academic

From the time he entered the graduate program Ernie has held a teaching or research position. Over the years he progressed up the academic ladder becoming a professor in 1967. His advancement was based on his scholarly work which included several books, many historical papers, consulting with a variety of historical and professional organizations and teaching the history of Pharmacy. He taught a fourth year class on the History of Pharmacy for many years at the

University of Toronto, one of the few Canadian Pharmacy schools that taught history. History was not a subject of interest for the practice focused Pharmacy students but he used a lot of visual material and worked at making it relevant to their future role. One former student told me that he sometimes gave oral examinations for his class. In addition to teaching and scholarship in the history of Pharmacy he also had an appointment in the Institute for the History and Philosophy of Science and Technology. Within the Faculty his administrative skills resulted in his appointment as Assistant Dean (1975 – 78) then Associate Dean. On two occasions he also served as Acting Dean.

As with many academics he served on numerous committees; Continuing Education committee, Library Committee, Striking Committee, Ad Hoc Committee on Part-time Faculty, Ad Hoc Committee on Faculty Council Rules of Procedure, Ad Hoc Committee on Promotions, Ad Hoc Committee on Research Space Allocation, Ad Hoc Committee on Admissions Procedures, Ad Hoc Committee on Renaming of Building, Committee on Admissions, Committee on Awards, Ad Hoc Committee on Undergraduate Studies, Ad Hoc Committee on Pharm. D., Tenure Review Committee, etc. He played a key role in chairing and steering many of these committees to deal with issues arising.

Pharmacy academics are represented by the Association of Faculties of Pharmacy of Canada. This organization attempts to have a common level of teaching and research across Canada and to make representation to government for adequate financial and research support. Ernie was on the Council of AFPC over a period of ten years (1969-79). He served on committees as well; Long Range Planning Committee, Special Newfoundland Study Committee, Curriculum Committee, Continuing Education Committee, and the Search Committee for Executive Director. In many cases he chaired these committees.

He made a major contribution to the Association of Faculties of Pharmacy of Canada (AFPC) by co-editing the history of AFPC along with Prof. Bernard Riedel "Celebrating our Heritage, A History of the Association of Faculties of Pharmacy of Canada, The First 50 Years 1944-1994". His role according to Prof. Riedel was that he "has been most active and most influential on the nature of the document

which this has become. Dr. Ernst Stieb, a true historian with appreciation for the scientific significance of proper documentation, and of the importance of accurate reporting of facts and details..." This book is by far the most understandable document in tracing the development of pharmacy education in Canada.

He was also an active member of the American Association of Colleges of Pharmacy the American equivalent of the Association of Faculties of Pharmacy of Canada.

### Prof. Stieb as a Historian

At the time of graduation Ernie appears to have had a strong interest in the history of Pharmacy. This may have been augmented by his association with Pat Paterson in the Faculty of Pharmacy. Prof. Paterson was a graduate student at the University of Wisconsin and was strongly influenced by Prof. George Urdang who founded the American Institute of the History of Pharmacy. Paterson founded the Canadian Academy of the History of Pharmacy in 1955 when he was on the staff of the University of Toronto. He served as the Executive Director until 1968 when it was passed to Ernst Stieb who was in turn Executive Director until 1995. I believe that Paterson was the supervisor for Stieb's M.Sc. program with the strange combination of Pharmaceutics and History of Pharmacy.

Ernie's major involvement in the history of Pharmacy was his link with the American Academy of the History of Pharmacy at the University of Wisconsin. This link continues throughout his career although it decreased over time as he took on other responsibilities. He was a Board member of the Medical Heritage Society from 1971 onwards and served as editorial consultant to their publications *Aesculapius* and later *Medallic History of Pharmacy*. He was the editor of the newsletter for the Coalition of Canadian Health-Care Museums and Archives for many years until 1995 when no editor was appointed, but he remained interested in the organization and prepared an extensive newsletter in 2004. One spin off from his involvement with the health museums was that members of the Canadian Academy of the History of Pharmacy received an annual booklet listing the health museums in Canada.

In 1971 he was appointed curator of the Niagara Apothecary Museum in Niagara-on-the-Lake, Ontario. This was a major project with support from government and professional groups. It involved a major restoration of a pharmacy to its 1869 appearance. This required changes to the building and its décor as well as the collection and display of period exhibits. Managerial issues of funding, staffing, directing, co-ordination with the community and profession and promotion were onerous responsibilities that were added to his academic and consulting duties. The museum is a remarkable restoration and has been recognized as an important historical museum.

His responsibility at the Museum continued after his retirement from the University of Toronto. He devoted a lot of time to it and drove back and forth from Kitchener until his health failed. The organizational base was firm by that time and the museum has continued to be a major tourist site.

### General

About 8 years ago Ernie dropped out of the Canadian Academy of the History of Pharmacy. People asked about him but no one knew where he was or what he was doing. There was a suspicion that he was not well as his final correspondence arrived in very large typeface. An obituary in the Globe and Mail signified the end.

There is general agreement that Ernst Stieb was a pleasant, quiet, person with a sense of humor. Anyone that knew him considered him a friend. In a conversation he invariably ended with a humorous or interesting phrase followed by a smile that included you in his circle.

Among academics he was well regarded and considered to be the most likely to accept a request to serve on a committee or to perform some administrative duty. He always did so in a way that indicated he was pleased to be asked.

With his passing there is a feeling of disappointment that I did not spend more time with him. I suspect that many others feel the same way.