dent to move forward. Once imbued with this knowledge, he would no doubt carry it to those with whom he may be associated.

In the preparation of this paper, correspondence was had with the deans of some of our colleges of pharmacy as to the place of the history of pharmacy in their colleges. Briefly stated, the situation would be somewhat as follows:

A moderate percentage of the colleges of pharmacy possesses a historical museum; likewise, a collection of data, documents, etc., pertaining to their own institution. A number of the colleges have in their libraries volumes relating to the history of medicine, pharmacy and allied arts. Courses covering the history of pharmacy are given in a goodly number of the colleges. In some of them it is short, covering only two hours in the three or four years' course. However, in some colleges the course is quite extended and complete. Encouragingly, there is reported a moderate interest by students in history as it pertains to pharmacy.

Many of the deans kindly made suggestions as to methods whereby the interest of students and graduates in pharmaceutical history could be increased. These suggestions will be made the subject of a separate paper.

This paper is primarily suggestive. An attempt is made to show that history, especially the history of pharmacy, has not yet reached into the drug store;

That for the great majority of druggists and their clerks, the subject of history has little or no interest;

That while able historical writers have produced much valuable historical data, it has not yet created an historical atmosphere for the rank and file of pharmacists;

That here is an opportunity for our associations to further stimulate interest in historical subjects;

That the practicing pharmacist—the druggist—can, through historical displays, promote an interest in the history of medicine and pharmacy to his own advantage.

HISTORY OF THE CALCIUM LACTOPHOSPHATE PREPARATIONS.[1]

BY WILLIAM J. HUSA[2] AND A. P. McLEAN.

Calcium lactophosphate came into use as the result of the suggestion of an European physician, Dr. L. Dusart, who, in 1869, recommended the use of calcium phosphate dissolved in lactic acid (1). In 1871, William Neergaard (2), a pharmacist of New York City, upon the request of Dr. B. W. McCready, prepared a syrup of calcium lactophosphate by dissolving freshly precipitated calcium phosphate in a diluted lactic acid, and adding water, orange flower water and sugar. This is the oldest record we have found of the use of calcium lactophosphate in this country. It was the spark which was followed by a blaze of tremendous popularity.

Because of the demands of physicians for numerous combinations of calcium lactophosphate, preparations other than the syrup came into use. Some of these, such as the elixir, the syrup with iron, and the salt, received official recognition, and there were a number of others, not so recognized, including the solution, the wine, and the emulsion with cod liver oil.

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[1] Section on Historical Pharmacy, A. PH. A., Washington meeting, 1934.

[2] Head Professor of Pharmacy, University of Florida.

After the article published by Neergaard in 1871, giving a formula for a syrup, a number of somewhat similar reports appeared in other journals. These were written in the main by pharmacists, who suggested their own preferred formulas, or some slight modifications of formulas, which to them seemed to give better or more stable preparations. In the syrup as well as the other preparations the principal difficulty encountered was the formation of a precipitate. Little attention was paid to the cause or nature of the precipitate, but efforts were made to delay or decrease the precipitation by changing the ingredients or varying the amounts. By 1880 the syrup of calcium lactophosphate had come into such wide use that it was recognized in the U. S. P. VI, and was also official in the U. S. P. VII, VIII and IX but was dropped by the U. S. P. X and taken up by the N. F. V.

The first record found of Elixir of Calcium Lactophosphate was its recognition by the N. F. I. It was also official in the N. F. II, III, IV and V. Syrup of Calcium Lactophosphate and Iron has been similarly recognized by each edition of the N. F.

For some years there was a difference of opinion regarding the chemical nature of calcium lactophosphate. Rother (3) considered it to be a double salt while Sambuc (4) stated that the salt was merely a mixture of calcium lactate and calcium phosphate. When calcium lactophosphate in the form of the salt was recognized by the N. F. IV, it was defined as "A mixture in variable proportions of calcium lactate, calcium acid lactate and calcium acid phosphate."

Among the unofficial preparations of calcium lactophosphate, the wine seems to have enjoyed little popularity in comparison with the others, perhaps because the alcohol of the wine made the preparation undesirable for children and it was for children that the preparations were mostly used. The solution of the salt likewise did not find extensive use.

The emulsion of cod liver oil with calcium lactophosphate enjoyed very wide popularity as an unofficial preparation. The earliest formula found was that of W. G. Moffit (5) published in 1873. Other formulas were proposed and commercial emulsions were put on the market by some of the manufacturers. The emulsion was criticized on pharmaceutical grounds by Polk (6), who also made the following statement:

> "The cry of 'Eureka' which has ascended so loudly over the new hobby, lactophosphate of lime and cod liver oil, it seems has almost led the enthusiastic members of the medical profession to hope that the great specific for all the ills to which flesh is heir had at last been found. The long high-sounding name ..... leads us to regard it with respect and confidence ..... The errors of the combination, outside of the quackery into which it has been run, however, immediately concerns us ....."

The emulsion was popular for about five years and after that no further record could be found in the literature.

Polk's denunciation of emulsion of cod liver oil with calcium lactophosphate appears unjustified in view of later developments. It is now accepted by medical authorities that rickets may be due to a dietary deficiency in any one of three things, *i. e.*, calcium, phosphorus or vitamin D. The emulsion of cod liver oil with calcium lactophosphate contained all three of these substances needed for proper development of bones, hence it seems unfortunate that the preparation did not remain popular. At the time the emulsion was introduced, vitamins were yet to

remain undreamed of for four decades. The emulsion thus suffered the fate of other innovations which are too far ahead of their time. In passing it is of interest to note that at about the same time that the emulsion fell into disuse, a physician made extensive reports on the value of sunshine in rickets and other diseases but he likewise was too far ahead of this era of irradiated food, irradiated drugs and irradiated human beings.

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SCHOOL OF PHARMACY,
UNIVERSITY OF FLORIDA,
GAINESVILLE, FLORIDA.

Pharmacists at the 50th Anniversary Celebration of the Institute of Pharmacy, University of Liege.

Front row (left to right)—Professors Goubau (Ghent), Herrissey (Paris), Van der Wielen (Amsterdam), Schoofs (Liege), Van Itallie (Leiden), Perrot (Paris), de Graaf (Utrecht). Back, from left—Prof. Sternon (Liege), Prof. Vivario (Liege), Mr. H. N. Linstead (Britain), Prof. Van Os (Gröningen); Prof. Stainier, Dr. Hofman (The Hague), Col. Thomann (Switzerland), Prof. Faurholt (Brussels), Prof. Ohlsson, Prof. Wattiez (Brussels), Prof. Goris, Prof. Van de Velde, Prof. Castille (Louvain), Prof. Penau, Dr. Jermstad (Oslo), Prof. Van de Vorst.—*Pharmaceutical Journal*, Dec. 22, 1934. Please see JOURNAL A. PH. A., December 1934, page 1243—note type error "Normal Arsenic."