The Influence of Pharmaceutical Education Upon
The Functions of State Boards of Pharmacy*

ROBERT L. SWAIN
Chairman, Executive Committee, National Association of Boards of Pharmacy, Editor of DRUG TOPICS

As we stand assembled here today to pay tribute to the School of Pharmacy of the University of Maryland, upon the occasion of the completion of the first century of its proud history, our minds quite logically go back to 1841 as the point from which to get our bearings and from which to rechart the course of events which have transpired since that day.

To really understand the event which we commemorate, and to utilize this understanding as a stimulation to still greater achievement, we must sense the conditions which gave rise to the school in the first instance, and then grasp the meaning of the succession of environments in which the school was progressively placed. In other words, we must put ourselves in the school's shoes, and retrace step by step the long and tortuous journey from 1841 up to now.

It will, however, not be a thankless undertaking. We shall find ourselves rewarded not only by the mental stimulation which such a task assures, but we shall learn much, and from this learning shall come a new sense of appreciation of the significance of things past and a truer sense of evaluation of things to come.

To some, history may be bunk, but certainly no rational person would dare deal so trivially with the vast and varied experience which presses so closely upon us on this very his-

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toric occasion. If we can learn nothing from a consideration of the crowded career of this venerable institution, then experience is a lifeless thing, and the past no more than dead leaves which we need not stir or disturb.

In 1841, when the School of Pharmacy of the University of Maryland, then known as the Maryland College of Pharmacy, first set sail upon the adventure which fortunately gives no signs of coming to a close, there were no pharmacy laws, no boards of pharmacy, and thus no standards of education or qualifications of experience demanded of those entering upon the practice of pharmacy.

There were drug stores, of course, but they were insignificant and unimposing, and had little about them to impress their value upon the public mind. A good drug store, in those days, had an annual sales volume of $1,500 to $2,500, and this in itself affords a fair picture of their economic plight and professional standing.

Pharmacy itself was not fully emancipated from the domination and control of the medical profession of that day. Physicians were both medicos and pharmacists, and many drug stores were operated by physicians as an adjunct to their medical practice.

In fact, as late as 1858, according to a report issued by the American Pharmaceutical Association, covering an extensive survey of pharmaceutical conditions, it was stated that the pharmacists of Baltimore were, with some striking exceptions, a rather incompetent group of drug vendors, and that a true sense of professional pride had not yet begun to play much part in the pharmaceutical standards of that time. Drug stores were simply stores, and what competitive advantage the pharmacist had over drug vendors came from the awe and superstition which surrounded his calling, rather than from any protection afforded him by law.

Drug stores were opened in response to personal likes and dislikes, and in accordance with personal predilections. One wanted to open a drug store and practice pharmacy, so he forthwith opened a drug store and practiced pharmacy. There were no legal or educational standards, and not the merest semblance of restrictions, limitations, prohibitions, regulations or restraints. It was a calling free and open to all, and it was engaged in by all and sundry kinds of people.
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There is little to indicate that there was any great enthusiasm for the School of Pharmacy when it was first established, and we can well surmise that it was looked upon more or less as a curiosity by the rank and file of pharmacists, who had not the remotest conception of the value of organized education in their field of endeavor.

It is probably true that there were not in all Maryland ten graduates of colleges of pharmacy when the Maryland College of Pharmacy was established. Having no educational background, the pharmacists of that day had no knowledge of what pharmaceutical education might be, and thus they were devoid of any capacity to visualize the benefits which might come from giving the drug store an educational foundation.

When boards of pharmacy were finally established in the 70’s and 80’s of the past century, they were made up mostly of men who had never attended colleges of pharmacy. The members had come up through the school of experience, which has always been somewhat intolerant of organized education.

Then, too, the teachers in colleges of pharmacy were frequently drug store proprietors, and thus were in competition with the drug store proprietors who made up the state examining boards. In those early days, a competitor was almost an enemy, as there were no local and state pharmaceutical organizations to bring them into contact with each other for their mutual benefit.

Thus, from the very outset the boards had an anti-college complex, which we must in all fairness admit persists, though with greatly depleted vigor, even to this day.

They looked with disfavor upon the teaching institutions, as pharmacy, so they visualized it, was something to be learned behind the drug store counter, and not something which could be taught in the rarified atmosphere of classroom abstractions.

Pharmacy meant the buying and selling of drugs, collecting them for drying and curing, storing them until properly aged, and then fabricating them into preparations of usable form. These various operations were extremely practical in form, and proficiency in them came from doing them over and over. It was experience, and experience alone which could confer competency, and experience could be obtained in one place, and one place only, and that was the retail drug store.
The boards of pharmacy in those early days simply ignored the existence of the colleges of pharmacy, and kept their eyes on the drug store as the source of pharmaceutical education and as the scene of that practical experience which, in due course, would make the pharmaceutical tyro a competent member of the craft.

As the years went on, however, the boards gave up the practice of ignoring the colleges of pharmacy and began to openly oppose them. Now, this opposition did not go so far as suggesting the abolition of the colleges, but rather was an expression of the conflict which existed between organized pharmaceutical education and practical drug store experience, and of the jealousies which had developed between the boards and colleges.

The colleges had shown that they did serve a purpose, and that they were quite capable of commanding a sizeable following among pharmacists themselves. The faculties of those days were composed of able men, men well qualified for pharmaceutical leadership and impelled by a vision and confidence which even to this day continues to exert an influence upon our splendid system of pharmaceutical education.

The board members, on the other hand, were drug store proprietors, and peculiarly conscious of their ability to deal in a practical manner with all the practical problems met with in the operation of a retail drug store.

As the prestige of the colleges advanced, the prestige of drug store experience advanced simply because of the emphasis placed upon them by their respective defenders.

The colleges were prospering, and gave ample evidence that they were becoming more and more essential in the pharmaceutical scheme. To some boards of pharmacy this was a challenge, and one which they accepted by paying more and more attention to the excellencies of drug store experience and less and less to the advantages offered by graduation from colleges of pharmacy.

Evidence is found in the fact that drug store experience was the only qualification demanded of prospective pharmacists during the first twenty-five years of operation under our state pharmacy laws. To emphasize this point, let it be said that college of pharmacy graduation was not demanded even in our beloved Maryland until 1920, and even when the law finally demanded college of pharmacy graduation as a requi-
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site of registration, on and after 1920, the prospective pharmacist was still required to present satisfactory evidence to the board of pharmacy that, in addition to his college of pharmacy diploma, he had had four years of practical drug store experience, which was to be computed in accordance with the formula prescribed in the law itself.

As late as 1920 in this state, it would appear that college of pharmacy graduation was looked upon as not fully effective in the proper training of a pharmacist, and thus had to be supplemented and supported by actual experience behind the counter.

This statement should not be construed as indicative of any lack of leadership on the part of the faculty of the School of Pharmacy of the University, nor as affording any criticism for the excellence of its educational work. Nor is it to be construed as suggesting that the pharmacists of this state did not have confidence in and respect for the School of Pharmacy. It must be accepted simply as a continuation of the conflict between education and drug store experience, and as proof of the value which pharmacists in general gave to experience obtained in drug stores themselves.

Finally, the boards of pharmacy throughout the country began to soften, and in due course came to accept colleges of pharmacy as constructive factors in pharmaceutical education.

Education in general had become quite respectable, and the college professor, while still looked upon as something of an incompetent old mossback, was finally emerging to a position of great respectability in the estimation of the public. More and more persons were attending high school, and more and more high school graduates were pursuing higher education in our colleges and universities. Education was going through an evolutionary process, and boards of pharmacy were conscious of what was going on.

Then, too, the number of college of pharmacy graduates was ever on the increase, and thus a new educational concept began to assume greater force and influence in pharmaceutical affairs.

The medical sciences were no longer moribund, and a new alertness to the significance of scientific progress began to assert itself. College of pharmacy graduates were finding places on the boards of pharmacy, and the boards' philosophy began to be more and more expressive of educational prin-
principles and more responsive to new educational pressures and demands.

Board of pharmacy examinations had already ceased to be patterned altogether upon the practical drug store experience concept and had begun to show the influence of professional pharmaceutical education. It was recognized that applied sciences must be predicated upon basic science, and that as pharmacy was largely an intermingling of applied science and professional technique, the examination would be more intelligent and thus more effective if it were grounded upon a sound knowledge of basic scientific fact and theory.

The changes in the attitude of the boards throughout the country was slow, sometimes tenaciously held back, but in the light of all the circumstances must be looked upon as progressive in its intentions and objectives.

About this time, there was established the National Association of Boards of Pharmacy, which included virtually all the state examining boards. Fortunately this national organization was given progressive leadership, and a leadership which visualized the benefits of pharmaceutical education as the one sure means of bettering the conditions of pharmaceutical practice.

From the very outset, this association has been cooperative with the American Association of Colleges of Pharmacy, with the result that the views of the boards have been brought to the attention of the colleges, and the views of the colleges have been brought to the attention of the boards.

From these contacts, there came a mutual understanding of the functions of each other, and thus a desire and a determination to give to the boards and to the colleges their respective places in the pharmaceutical scheme.

The boards became more and more conscious of their limitations with respect to matters within the field of the expert educator, and the colleges came to look upon the boards as the best qualified group to measure and evaluate practical experience and to determine what part it should play in the education and registration of pharmacists. No one could overestimate the value of the contributions to pharmacy which have come from the inter-relationships between the National Association of Boards of Pharmacy and the American Association of Colleges of Pharmacy.

And thus, in Maryland, and particularly on this occasion,
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it affords us some pride to know that many of the leading influences in both of these national groups have come from the School of Pharmacy of the University of Maryland, either as alumni or as members of its teaching staff.

Today we have reached the point where the conflict between boards of pharmacy and colleges of pharmacy has about disappeared. Drug store experience, too, has ceased to be important as a factor in the education and training of a pharmacist, and the significant thing is that the conflict has not subsided nor drug store experience waged a losing fight because of aggressive tactics on the part of the colleges, but rather because of the pressure of circumstances too profound to be withstood.

Pharmacy is looked upon as a public health profession, and as such must be supported and sustained by a system of professional education. It is universally accepted today that the training of the pharmacist is truly an educational matter, and that it should be left to colleges of pharmacy as a matter to be dealt with by professional educators.

Worthy of note, too, is the fact that among the most aggressive champions of higher educational standards for pharmacists will be found most of the members of state boards of pharmacy. It is a matter of historical record that the movement which later resulted in the establishment of the American Council on Pharmaceutical Education was originated in the National Association of Boards of Pharmacy which, as we have remarked above, is simply an organization of the individual state examining boards.

The boards of pharmacy share the view of colleges of pharmacy that the pharmacist should have a true university education in the various fields of chemistry, physics, bacteriology, pharmacology, pharmacy, biometrics, and the other sciences upon which public health so largely depends.

Not only should the prospective pharmacist be well grounded in the basic and applied sciences of his profession, but he should be equally qualified to take his proper place in community life and to discharge his responsibility to civic progress. In other words, the pharmacist must be prepared to serve both as a pharmacist and as a citizen, and in order to do this he must have had the advantages of organized education in both professional and cultural fields.

Boards of pharmacy today are almost entirely composed
of college of pharmacy graduates, and obviously they have brought to bear upon all the problems which confront them a broad educational outlook which in itself is an excellent tribute to the integrity of pharmaceutical education.

It is being seriously considered today that written examinations of the traditional variety be discontinued by boards of pharmacy, and that college of pharmacy graduation be accepted as conclusive evidence of a satisfactory completion of the course of study, and thus as conclusive evidence of the qualifications essential to entering upon the practice of pharmacy, so far as the purely theoretical and scientific subjects are concerned.

The proposition has been seriously advanced, and just as seriously received, that the boards confine their examinations to a searching practical examination, and leave the purely educational subjects to the educational experts, where common sense and experience have shown that it rightfully belongs.

The years elapsing since the founding of the School of Pharmacy of the University of Maryland a century ago have been momentous years, years in which custom has given way to custom, and a new order of life has been superimposed upon the wreckage of the old.

But while some of us may look longingly back at the days of crinoline and pantalettes, back to the warm-hearted hospitality of the less turbulent days, and may like to catch, even though ever so faintly, the fragrance of old lavender, we must admit that the world has progressed, and that with the giving up of priceless things have come other things equally priceless.

In the field of pharmaceutical education, we have seen the conflict between drug store experience and college of pharmacy training go through the process of orderly evolution, in which boards of pharmacy have not only lost their opposition to colleges of pharmacy but have become their most outstanding champions. One of the most intelligent characteristics of boards of pharmacy today is their frankness in seeing the limitations which surround them, and their desire to find a place in the pharmaceutical educational system more in keeping with their peculiar qualifications and more in response to sound educational principles.

The journey from 1841 to 1941 has been hard, dangerous,
sometimes uncertain and confused, but it has always lead in the right direction, a fact nowhere better exemplified than in the field of pharmaceutical education, and particularly in the development of the educational concept which has characterized the School of Pharmacy of the University of Maryland.

To the School of Pharmacy of the University of Maryland, pharmacy and society owe much. As one of her loyal sons, I am content to sit at her feet, confident of still better things yet to come, not only to pharmacy but to the boundless future in which pharmacy, with her thoughtful care and direction, will play an honorable part.