

laboratory and are less likely to consider its work as made up of "stunts" which have little connection with the general course.

And,—to return to our subject,—from which method of instruction, lectures or laboratory-practise, does the student benefit most? I answer, it depends on the teacher and on the student. But, in general, I think you will agree with me, that lectures which most closely approach the laboratory method, namely those which freely employ demonstration and experiment, are the most efficient, while laboratory-practise which shares some of the lecture methods, if indeed it does not directly accompany or follow a lecture, gives also the best results.

To my mind, the ideal plan is the combination of lectures, recitations and laboratory-practise associated together in each subject and with the teacher allowed much latitude in the assignment of the relative number of hours devoted to each of these means of instruction. I believe that when the present minimum course adopted by our syllabus committee is increased, the hours added should be very largely given to laboratory-practise.

And let us keep in mind the changed conditions now confronting students of pharmacy and anticipate, as we can, the further changes which are near at hand. As Professor Mann has put it aptly, concerning the student in another branch of education, "It is no longer, What does he know?—but, What can he do? No longer, How much can he reproduce?—but, How well can he produce?"

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THE COMPARATIVE ADVANTAGES OF PRACTICAL EXPERIENCE AND GENERAL EDUCATION AS A PRE-REQUISITE OF INSTRUCTION IN A SCHOOL OF PHARMACY.

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If the pharmacist were a machine, possessing no other intelligence than that which represented the maker, and doing his work as a result of having been wound up and set going, it would appear desirable to leave out of his construction every unnecessary cog and rivet, lever and spring, so that he would do nothing else than go through the motions for which he was constructed, and would know nothing about what he was doing or why he was doing it. To approach, as nearly as it is possible for a human being to do, to this condition appears to be the conception of the pharmacist's duty which is entertained by a large number of persons connected with the calling. Being a human soul, the real duty of the pharmacist would appear to be to escape just as far from the state suggested, as is consistent with his professional work. The thoughtful person will not fail to recall, that, even in the performance of his ordinary duties, the pharmacist is as often called upon to meet emergencies, and to be thrown upon the resources of his individual intelligence, as are most other members of the community. He will best do this, whose ideas and whose judgment have been the most broadened, and whose intellect has been the most developed;

strictly professional knowledge and skill being not considered. My claim, therefore, as to the value and importance of the preparatory general education of the pharmacy student, is a double one: first, that his professional work is not the *end* of his living, but merely a *means* to the end of that individual development, which he shares with all other members of society, and for the promotion of which he is entitled to a liberal preparatory education. Second, that such a preparatory education is necessary to give him the intellectual capacity that his professional work requires.

On the other hand, practical professional training is indispensable, and the earlier that a student gets it, the better will be his preparation. To attempt to compare the value and importance of these two elements in his preparation, is, therefore, like comparing the relative importance of food and drink in the human diet. Since both are essential, it becomes a question, not of their relative importance, but of the appropriate division of time between them and the most opportune period of its assignment. It must be remembered that there is but one time when the pharmacist can secure any systematic general education, and that is before he begins his professional course of study. From the day of the opening of his pharmacy course, until the day of his professional retirement on a competence, should he be so fortunate, his studies will become more and more narrowly professional. In the first year of his pharmacy course, there will be some latitude in the direction of a broad theoretical foundation for his studies, but in the second, his attention is to be restricted to purely technical matters. As soon as he graduates, the life and death struggle with finance, will begin to absorb him. Having decided then, how much general education he should receive, there appears to be no choice as to the place of its assignment; it must come before he matriculates in the pharmacy school, except for the slight theoretical teaching of the introductory year. Practical training on the other hand begins with matriculation, increases in the second year and becomes the exclusive occupation after graduation.

The question now arises as to the desirability of beginning this practical training earlier and of excising, in its interest, a part of the scanty general education that can come only in the ante-pharmacy period of life. It is frequently said, and truthfully so, that a boy who has a year in a store, before he attends college, makes a better pharmacy student than one who does not. It is equally true that, if he never attended primary, grammar or high school at all, but went to work in the drug store as soon as he was capable of performing any duties, he would do still better with his strictly professional work in the pharmacy school. Indeed, he would probably not have to attend that school at all, in order to be able to pass the ordinary board examination. Now, would that fact constitute a justification for instituting such an arrangement?

As a matter of fact, it makes a boy a still better student and a much better pharmacist, if he can take a year of store work between his first and second years of school work, and this arrangement is far less open to objection than the other. Far better than either, is the plan of combining the two kinds of work in a single course, as is done in our larger cities. Given a sufficiently extended course of study,—which a two-year course is not,—and the alternate days of school work

in store experience, with long vacations devoted also to store experience, is the ideal way for gaining practical experience, and this arrangement entirely eliminates the grounds for demanding practical training before the school course begins.

THE NEED FOR ENFORCING EXISTING LAWS.

BY M. I. WILBERT, PH. D.

If one were to be influenced solely by the evidence presented in the printed proceedings of the state pharmaceutical associations and in the pages of trade-journals one would be justified in the conclusion that the great American mania for law-making is more frequently evidenced in the followers of our craft than in the votaries of any other occupation.

There are, of course, good and sufficient reasons for the periodic interest on the part of members of the drug trade in legislative matters, not the least important of which is the fact, that the drug business offers such a variety of possibilities for the activities of well-meaning but usually poorly-informed reformers; which from a very early period has offered a fruitful field for so-called reform legislation, with all of the inconsistencies and inconveniences that are usually entailed.

It should be remembered though, that many of the existing laws, had their origin with well-meaning, though not always far-seeing members, of the pharmaceutical craft, who were really desirous of accomplishing something of value for the purpose of protecting the interests of the public, and that we of to-day are loath to have their work undone. These early advocates of statutory laws and we, their followers, frequently fail in our legislative program because we lose sight of the essential truth that, without strong public opinion to insist on their enforcement, statute laws are of necessity in-operative.

General arguments, however, are not always convincing and for the purpose in hand it may perhaps be best to restrict the discussion to specific instances.

The Pharmacopœia itself is now so thoroughly well established as an essential feature of the statutes relating to the drug trade, that no argument would appear to be necessary to convince members of our craft that the requirements of the pharmacopœia are *in fact* law and should be lived up to by all members of the trade entrusted with the important duty of controlling the nature and purity of drugs dispensed to the consumer.

In recent years, we have heard many and at times apparently reasonable arguments, in favor of the elimination of that feature of Section 7. of the Food and Drugs Act, which permits of variations from pharmacopœial strength, providing the variation be plainly stated upon the bottle, box or other container. The need for, or even the desirability of, such a change is open to question, when one considers that food and drugs laws are now generally well-recognized as being measures to compel commercial honesty and, strictly and impartially enforced along the lines suggested in recent court decisions, these laws will go