

EDITORIAL

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253 Bourse Bldg., PHILADELPHIA

THE ANNUAL MEETING OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

NEVER before in the history of the American Pharmaceutical Association has there been such urgent necessity for a large attendance at an annual convention. Pharmacy has an opportunity, which if grasped speaks for advancement, while indifference or neglect may mean retrogression. The American Medical Association is supporting the efforts of the American Pharmaceutical Association for professional recognition of pharmacists by the Government, and the officials have given a hearing to our representatives. The work has only started, but there has been progress; your officers have been unceasingly at work, have given their time, and now ask that you counsel further with them at the Indianapolis convention.

Narcotic laws have been amended and new ones enacted, and satisfactory control of the traffic in narcotic drugs seems assured, a consummation long hoped for. The results of the legislation will be part of interesting reports. The increasing tax measures, in which every member is vitally interested, will be discussed and your coöperation will unquestionably mean money to you.

You have an interest in the Pharmacopoeia and National Formulary as well as the A. Ph. A. Recipe Book; you should participate in a discussion of these publications and in that way make all of them better and more serviceable. Reports and papers dealing with them constitute part of the programs of several Sections.

The report of the Treasurer for the fiscal year of 1916 will be found in this issue, and the figures are pleasing; you can "do your bit" by bringing in a few additional members; no one should have less than one new application to his or her credit.

The Year Book of the Association has been issued and mailed to the members; the next one is already in preparation.

As every year, many valuable papers will be read before the various Sections, and no matter what phase of the drug business concerns you most, there will be much to interest you. Several illustrated lectures have been provided for.

The House of Delegates this year offers an opportunity to coördinate the ideas that have been developing since its establishment. Every state association, represented by member delegates, will have a voice in providing for the functions so that this body may be of greatest service in bringing them together and for planning their coöperative endeavors.

The invitation to come and participate is largely directed to new members and to those who have never attended a meeting of the American Pharmaceutical Association, for a first attendance almost invariably brings a "repeat order," hence year after year, many of the same faces are seen at the annual meetings, one of the very best endorsements that any association can have. Make your arrangements to come, now.

E. G. E.

THE AMERICAN PHARMACY FAIRCHILD SCHOLARSHIP.

ON account of the very short notice that it was possible to give, only one candidate presented himself for the Fairchild Scholarship examinations held June 25th. It was, therefore, impossible to award the Scholarship; however, an adjourned meeting for further examinations will be held September 26, 1917.

The candidates must be graduates of a four-year high school course and have had two years' drug store experience, and the examinations are to be conducted under joint supervision of a school of pharmacy, belonging to the American Conference of Pharmaceutical Faculties, and of the State Board of Pharmacy. While the dean and president, respectively, have been named for this supervision, it is assumed that they may delegate representatives. The examination questions relate to elementary chemistry, elementary materia medica, practical pharmacy and prescription reading, and elementary business knowledge.

The questions will be supplied to the presidents of the Boards of Pharmacy and the deans of the Colleges of Pharmacy of the American Conference of Pharmaceutical Faculties; such orders must be sent to the editor of the Journal of the American Pharmaceutical Association, 253 Bourse Building, Philadelphia, and be under the seal of the board or college. The candidates' credentials and also the answers to the examination questions must be sent to the editor of the Journal, who will turn them over to a committee for grading them; the answers should bear a mark of identification but not the name of the candidate. The editor is not a member of the latter committee.

The award of the Scholarship will be made on the basis of 70 for the examination record and 30 for the credentials. For further reference to the Scholarship, see p. 440, May 1917, Journal American Pharmaceutical Association.

E. G. E.

THE PHARMACIST'S INTEREST IN PRELIMINARY EDUCATION.

NOTHING means more to the nation than the teacher's work, and this is applicable to every industry and profession, not only in a deductive sense, but specifically. It can as truly be said that the embryo pharmacist is developed under the training of the teacher as that the citizenship is molded under

the same direction. Indifferent teaching, cultivation of careless and slovenly habits of work and thought cannot produce a very high type of citizenship nor do such methods fit the minds for technical school education nor prepare the young men and women to achieve success in business or professional life.

The substance of the thought is not new, only expressed differently than by the words of others, and here to emphasize that pharmacists should give more attention to our schools and that they, as citizens and in the interest of pharmacy, should, in every way possible, assist in shaping the educational system of our public schools. The neglectfulness of citizens generally of this highly important matter is deplorable. Critics are ready to point out deficiencies, but there is a lack of the encouraging spirit which will stimulate more men and women engaged in teaching to greater efficiency in their work; the inducements for persuading those who would perhaps be better qualified for teaching are not to be compared with the opportunities in other lines for capable persons who are determined to succeed, and not in later life become dependents.

If the salaries of teachers are to be based on a scale much lower than for work which requires far less sacrifice and devotion of time, entails less wear on the nervous system, then provision should be made for pensioning teachers after a determined number of years of service. If adequate salaries are paid or assurance made that, on account of lack of opportunity to provide for later years, they are given an annual honorarium, then more who are qualified to teach will select teaching for a vocation and means of livelihood, for, assuredly, the honor of building the characters and assisting in developing the minds of those who become the makers of history and of the industries is attractive and in itself a reward.

Having thus endeavored to pay a tribute to the teachers and acknowledged a duty to them for the important service that they render, reasons will be assigned for some of the statements relative to educational shortcomings and an attempt made to present ideas in that connection which again are not new, in fact have been brought forward for centuries, but like the ideal of all undertakings still remains to be achieved.

More than two hundred years ago, Dr. William Harvey wrote in the preface of one of his works, "Those who, reading the words of authors, do not form sensible images of the things referred to, obtain no true ideas, but conceive false imaginations and inane phantasms." We would go further in drawing conclusions and say that the mind is blurred; worse than useless, the effect is harmful. It is quite generally conceded that much reading for simple gratification and without a purpose to intelligently absorb some of the thoughts embodied is at least valueless. So also studying of subject matter that is not comprehended and without attempting to grasp its meaning weakens both the intellect and memory and gives neither discipline nor content. While it must be admitted that the study

of Greek and Latin, provided the languages are really understood, gives the students mental discipline, the percentage of those who acquire such proficiency is small, and it would be far better if the philosophers and historians were studied in the translations.

Teachers in schools of pharmacy are painfully aware that a large number of their students are not prepared to acquire a knowledge of the subjects they endeavor to teach them. This is especially true in the study of physics and chemistry and even that of the mathematics of pharmacy. There is a deficiency somewhere in the system of school education; the interest of the pupils is not sufficiently excited to an understanding that enables them to thoroughly apply the knowledge. There must be a lack of meaning to them in what is taught, however potent the system may be for disciplining the mind.

Books are necessary as guides; as references, they contain the authors' analyses of the subjects presented, but to make this information available to the young minds, teachers must emphasize the meaning, explain the underlying reasons, elucidate the reasoning of the analysis which the author seeks to convey. Discipline of the mind by studies is necessary but they are in a degree meaningless or at least have not the value needed for active life unless the words and symbols are available for summarizing experiences—develop reasoning, encourage analysis—stimuli that compel action. Herein is probably the difficulty—that which is studied is not comprehended, it does not “electrify.” There is too much memorizing and as a result when a known subject is presented in a somewhat different way there arises a confusion in the minds of the pupils, followed by a resort to guess. The subjects should be so taught that the rule, the words or the symbols are essential as a means of instruction; by themselves inane, valueless, unless they are true measures and their purposes fully comprehended—the intelligent application is the important thing, whether this is concerned with history, mathematics, chemistry or any other study. The thought that we are endeavoring to impress has been expressed in this way by another, “the value of any fact or theory as bearing on human activities, in the long run, is determined by practical application—that is, by using it for accomplishing some definite purpose.” There must not only be a knowledge of the subject but an intelligence to apply it.

A large percentage of the students coming to schools of pharmacy are not prepared to apply the essence of the rules of simple mathematics in actual pharmaceutical practice, and the students are exceptional who can utilize their preliminary studies of physics and chemistry in the laboratory, in fact, the learning they have often discourages them to such an extent that chemistry which should be of the liveliest interest is a subject feared by many. They have studied it bookishly instead of practically; they have been deprived of opportunities; their minds have been loaded with material that is of little or no value. It is not said that the

courses in colleges of pharmacy are perfect by any means, but the methods of teaching in public schools are under consideration.

Huxley said, "The great end of life is not knowledge but action. What men need is as much knowledge as they can assimilate and organize into a basis for action; give them more and it may become injurious." This carries only part of the thought we seek to awaken; the other is that if the methods of communicating knowledge were not at fault the energy and time given in an educational course, not overburdened with valueless material, would be productive of better results. The value of the sciences is derived from such knowledge of them that makes them available in practice.

Dr. Nicholas Murray Butler has said, "the first question to be asked in any course of study is, 'Does it lead to a knowledge of our contemporary education?' If not, it is neither efficient nor liberal."

Professor John M. Gillette has made this statement, "I have no hesitancy in declaring that the first and foremost duty of society, through the agency of schools, is to make every boy and girl fit to make a living by means of some special knowledge or skill which society has need of."

The teacher can only efficiently instruct in those branches with which he or she is thoroughly familiar. This preparedness characterizes the teacher who makes the subject interesting and speaks for successful teaching. In order to prepare students for the technical and professional schools, teachers must familiarize themselves with the needs of the trades and professions; not unless they have taught the fundamental branches so that the students can make intelligent use of the knowledge, have the teachers performed their duty to them.

Huxley in an address on *Science and Art in Relation to Education*, said, "to teach the elements of any subject requires most careful consideration, if you are a master of the subject; and if you are not a master of it, it is needful you should familiarize yourself with so much as you are called upon to teach—soak yourself in it, so to speak—until you know it as a part of your daily life and daily knowledge, and then you will be able to teach anybody."

Frederick M. Davenport has well said, "Let none suppose that any crowd of American college boys ever sat for one year or two years at the feet of a college professor without knowing the substance of that man. There is nothing human that I know of so near the infallible as the final estimate that college men put upon an instructor. His foibles they know. If he is sound at the core they know it; if he is not, they know that. No college professor ever got away from the real judgment of his own boys, though he may have fled to the uttermost parts of the sea."

The mind of the scholar should be brought into direct relation with fact, not merely be told a thing but made to see it by his own intellect and ability that the thing is so and not otherwise. Using the words of Abraham Flexner for this thought (*Atlantic Monthly*, April 1917), "Science, literature, history, modern languages, industrial processes would be taught *because* they answer the questions which live people ask and can be led to ask or *because* they in their substance minister to our

needs, capacities or aspirations—taught, that is, because they *serve* purposes and in order that they *may* serve purposes.”

Aside from the interest every citizen has in schools, pharmacists are concerned in educational systems that prepare the youth so that they can readily apply that which they have been taught in a practical way, in business life, and the schools of pharmacy will show better results if the preliminary education and training has made the students observant and developed in them an analytical mind, a conception that education is not for the mere sake of acquiring knowledge but also for making good use of it.

The instillation of the disciplinary purpose of study is often so strongly fixed in the minds of students that even those who attend schools of pharmacy fail to realize that their laboratory work here is for the purpose of making them proficient and that they will do just this kind of work when they actively engage in the drug business. Indeed a very large percentage of the graduates experience a relief when their College days are over, and thereafter do not make that wider and practical application of what they have been taught in the sciences underlying pharmacy for which they presumably gave their time, study and money while at school. As before they entered college they seem to be willing to let others do their thinking and investigating; their knowledge of pharmacognosy and chemistry is largely neglected instead of being put to practical use. There is a constant proclain that “commercial” pharmacy is the important thing when really the commercial value of the sciences taught in the schools of pharmacy is largely overlooked as an integral, instead of utilizing the knowledge thereof in work that can be, and is by others, made to bring financial returns and at the same time gives a professional standing to the pharmacist.

But the message is a call to the pharmacists to exhibit a deeper interest in the movement for more efficient educational methods which mean so much in developing a citizenship that can industrially and intelligently compete with that of other nations. More than ever before have the educational methods of European countries been studied, and we do know their educational systems, that are closely linked with manufacturing and agricultural interests and the professional lines, have made their existence, if not their past prosperity, possible.

The preliminary educational demands of schools of pharmacy, even when measured in counts and points, may mean very little; mental discipline is important, but certainly the value of such preliminary education depends also on whether the methods pursued in mathematics and science studies are compatible or will blend with those of the pharmacy schools, or whether they are impracticable and useless, if not disadvantageous, for the students of pharmacy.

There is probably no item of the expense budget of a state more closely trimmed than that for educational purposes, and still if the money is properly used it con-

stitutes the best permanent growing investment states can make and no state funds can be more equitably distributed; perhaps "equitably" is not the proper term, for the smallest tax-payer has an equal share and more frequently a larger one than those who pay most. Municipalities wrangle over the salaries paid to teachers, whereas the contention should be for the limit, a desire to advance them year by year as the teachers develop their efficiency, so that the best qualified will seek this important service as life-work.

Let us take a deeper interest, not only in schools of pharmacy but all educational institutions and promotions, for such earnest endeavors stimulate progress, make our lives of greater value to ourselves and others.

E. G. E.

To the Editor of the Journal of the American Pharmaceutical Association:

In the July number of the JOURNAL (page 617) appears an article on the analysis of camphor liniment by L. F. Kebler, and collaborators. The method (heating and polariscopic) in general is the same as that used in this laboratory since 1913. To obtain the best results the liniment should be weighed in a tared flat bottom platinum dish and heated at 110° C. for 90 minutes. Heating in platinum requires just half of the time required for porcelain; 110° C. was found sufficient to volatilize all the camphor, without causing any decomposition of the cottonseed oil, while at 150° C. a slight decomposition of the oil was noted. It is necessary that the oven be ventilated to permit the camphor vapor to escape, or the time required for heating will be lengthened, due to the air in the oven becoming saturated with camphor.

This heating method, together with the determination of the rotation of the liniment in a 200 mm. tube was recommended to the U. S. P. IX Revision Committee but was rejected; and the laborious and impracticable method now official was adopted.

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LABORATORY, MARYLAND DEPARTMENT OF HEALTH,
BALTIMORE, MD., July 27, 1917.