

# THE DEPARTMENT OF THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

C. B. JORDAN—CHAIRMAN OF EXECUTIVE COMMITTEE, A. A. C. P., EDITOR OF THIS  
DEPARTMENT.

## THE TEACHING OF BOTANY TO PHARMACEUTICAL STUDENTS.

BY HEBER W. YOUNGKEN.\*

The editor of this Department will not attempt to comment upon the teaching of botany as that subject is not a specialty with him and he will therefore leave the discussion of it to those who are prepared to discuss it intelligently.

However, I do wish to support and emphasize what the author says about "standardizing methods." For years there have been a few members of the A. A. C. P. who have advocated standardizing methods of instruction. I have always been opposed to it and will oppose any efforts to saddle upon the Association anything that will attempt to destroy the originality and initiative of any instructor. Methods that are highly successful in the hands of one instructor may be the ruination of the work of another. As Professor Youngken puts it, the context of a course should be pretty well standardized, at least the minimum subject matter, but the methods to be used in presenting this subject matter must *always* be left to the good judgment of the instructor. Nothing will stultify pharmaceutical education, or any education, as quickly as the standardization of methods of presentation.

C. B. JORDAN, Editor.

The teaching of botany in Colleges of Pharmacy of America appears to be more varied in extent, methods and illustrations employed than that of, perhaps, any other science entering into the pharmaceutical curriculum. In many of the University schools, pharmacy students are taught this subject in common with the students of liberal arts and science courses and so are really receiving general botany. In some of the strictly professional pharmaceutical colleges, general botany is also presented, while in others, as in a few University schools, varied specialized courses with more or less pharmaceutical bearing are offered.

It is not the intention of this paper to criticize the variety of methods employed, for the writer thereof is of the unswerving opinion that every teacher of botany should be given the broadest latitude of freedom in presenting this subject, so long as the minimum list of topics under the subject of botany in the Pharmaceutical Syllabus and the botanical findings of the Commonwealth Study of Pharmacy are included in the course.

He regards all attempts at standardizing methods of presenting this subject and of illustrations of a specific nature as tending to weaken the influence of the teacher and the individuality of the institution. Whether the teacher follows the evolutionary, the morphological or some other method should be left entirely to his or her preference, so long as there is a proper accomplishment of the end desired.

I believe, however, in the standardization of a minimum list of topics which should be included in the botanical course of a pharmaceutical college. Such a list should include all botanical terms excepting names of plants, employed in the latest editions of the United States Pharmacopœia, the National Formulary and the United States Dispensatory. Without the basic training in the understanding

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of these, the student is handicapped in pursuing the more advanced and applied subjects of Pharmacognosy and Organic Materia Medica.

One of the problems confronting every teacher of Botany in a Pharmaceutical institution during the present age is that of interesting his pupils in a subject which is new to many of them and laden with many more technical terms than that of any other branch in the pharmaceutical curriculum. There are some who would solve this problem along lines of least resistance by teaching very elementary botany to their first-year students. I consider that dangerous, since the teacher is only postponing the burden to the second or third year and the student is improperly prepared to tackle Pharmacognosy.

It has always seemed illogical to me to conceive of High-School graduates of normal minds as unable to digest and assimilate Botany of first-year college grade when only a generation ago the average student entering our medical colleges had but one year of high-school preparation with which to master the more difficult subject of first-year Human Anatomy.

The obstacles encountered by the average teacher may be largely attributed to the present-day craze for pleasure and the inadequate high-school training of some of the pupils. The side shows of college life consume much of the time that should be devoted to mental and physical development.

To combat these conditions, the teacher of Botany must make his course interesting and attractive. He should be inspired with his subject so as to impart his enthusiasm for it to his students. Object lessons, using numerous charts, lantern slides, medicinal plants, blackboard sketches, crude drugs, abundant laboratory material all add to the attractiveness of the subject and tend to heighten the students' interest.

I believe it good practice to avoid all signs of being on the defensive while teaching this subject. I have known of some teachers to openly make excuses as to why Botany had to be taught. Such procedure immediately impresses the student-body with the belief that they are taking an unnecessary subject. The direct bearing of the subject of plants upon Pharmacognosy and Materia Medica, and, in fact, the very existence and health of man can be pointed out without recourse to excuses for its presentation.

I find it good practice to take beginners on a field trip as soon as possible after the opening of their course and require them to take notes on the plants observed, including statements made in the field on a number of them.

Now, as to the departments of botanical inquiry which should receive the greatest stress, I would place Morphology, including Gross Anatomy, Histology and Cytology, first; and Taxonomy, second. Economic Botany, Geographical Botany, Physiology, Ecology, Heredity, Plant Breeding and other phases of the science can be used to advantage as connective tissue in order to help the students fix the morphologic and taxonomic data and enhance their interest.

I believe it is a mistake to give pharmaceutical students the same course in Botany as that offered to academic students. In many academic institutions this has a physiological basis and the students do not assimilate sufficient of the kind of Botany best adapted to their needs.

Our duty is not to train botanists but pharmacists. The course we offer should have a pharmaceutical connection through the use of as many illustrations and

materials from medicinal plants as can be properly worked into the schedule. A medicinal plant garden is a valuable asset in this connection.

If we are to provide students with the armament essential to properly cope with the botanical phases of Pharmacognosy and Materia Medica, if we are to prepare them to interpret with intelligence the botanical monographs constantly appearing in pharmaceutical literature, then the emphasis in our botanical teaching should be placed on those aspects of the subject which are in most direct and fundamental relation to the principal objectives to be attained, namely, Plant Morphology and Plant Taxonomy.

## THE PHARMACIST AND THE LAW

BY HOWARD KIRK,\* EDITOR OF THIS DEPARTMENT.

A friend writes: "If you were to mix axlegrease and talcum powder and put it in a can and label it 'Kirko,' and then advertise the compound as a cure for chilblains, is there any thing in the law to stop you?"

Nothing, we reply, except certain State laws and the Federal postal laws and the Pure Food and Drug Law and possibly some others. All because we have used the word "cure." But suppose we don't say on the label that the stuff will "cure" anything. We say it is "good for" chilblains—or better still, "used for" those articles. What law are we violating? "Recommended for" will also get by. We had better be a little cautious with "Physicians recommend," for the Government might round up some physicians who wouldn't. But if we stick to "used for" we can sell 'em anything, so long as it isn't positively harmful.

Do we hear you say that axlegrease and talcum powder won't cure anything? What difference does that make? "*De minimis non curat lex.*"

There are plenty of Kirkos on the market, with just about the therapeutic value of talcum powder and axlegrease. Their presence on the shelves of our drug stores constitutes the meanest kind of a fraud—a fraud on the sick.

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Lawyers have a saying that "If you want to find the law, look in the dissenting opinion." They figure that if a judge cares enough about a case to write a dissenting opinion, he is likely to fortify it with some real law.

Take, for instance, the dissenting opinion of Justice Oliver Wendell Holmes, of the Supreme Court of the United States, in the case which gave rise to all our discussion about resale price maintenance. This was the case of *Dr. Miles Medical Company v. John D. Park & Sons Co.*, reported in 220 U. S. 373 (1911). Dr. Miles desired to maintain a resale price for his products, and entered into a series of contracts with certain drug concerns, by which they agreed to sell the Miles products to the public for the prices named. Park & Sons secured a quantity of these products from a number of the customers of Miles, and then proceeded to sell the same to the general public at cut-rate prices. Dr. Miles sought to have Park & Sons restrained by injunction from cutting his prices.

The United States Supreme Court refused to grant the injunction, holding

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