- 3. Silica gel lessens the time in making preparations, as it helps filtration to become more rapid.
  - 4. Silica gel will not take the place of purified talc in the presence of alcohol.
- 5. Alcohol on silica gel produces an effervescence and a rise in temperature. This should be investigated.

## THE TRAINING OF THE PRACTICAL PHARMACIST.\*

BY WILLIAM J. HUSA.1

The aim of the College of Pharmacy of the University of Florida is to turn out *practical* pharmacists. This does not imply that we do not wish our graduates to know pharmaceutical theories, but rather that we want them to have such a thorough and sound knowledge of theories that they can correctly apply them and put them to practical use in producing superior pharmaceutical service.

Our three-year course is primarily a course in pharmacy, pharmacognosy, and pharmacology. A course in botany is given to serve as a foundation for the study of pharmacognosy. Anatomy and physiology are included to prepare the student for his work in pharmacology, bacteriology, and biological standardization of drugs.

The courses in general chemistry, qualitative and quantitative analysis and organic chemistry lead up to the work in toxicology, physiological chemistry, clinical testing and drug analysis.

We give a brief course in hygiene, and some work in physical training and military drill, so that our students may grow toward that worthy ideal of "a sound mind in a sound body."

I will now point out in somewhat more detail what we do in pharmacy proper, which is my own particular field. During the first half of the first year we cover the field of pharmaceutical arithmetic, including thorough study and drill on the various systems of weights and measures. The state boards of pharmacy recently have given this important subject greater recognition, by including in their examinations a separate paper on pharmaceutical and chemical mathematics.

During the second semester of the first year we take up the history of pharmacy and pharmaceutical literature and a study is made of the apparatus and processes used in pharmacy. Considerable attention is devoted to the fundamentals of pharmaceutical Latin and the student makes a good start toward the acquisition of a Latin vocabulary suited to the needs of the pharmacist. In this and succeeding courses, each student prepares several hundred U. S. P., N. F., and special preparations. In this work the student is taught that cleanliness and accuracy are absolutely essential and each student must keep his utensils, desk, and balances spotlessly clean. The students are told that a good pharmacist leaves no tracks.

Time will not permit a detailed discussion of each course, so suffice it to say that the work on theoretical and practical pharmacy continues into the second and third years. Some work is also given in commercial pharmacy, and thorough courses in prescriptions and dispensing, and in drug analysis.

<sup>\*</sup> Presented at the 22nd Annual Convention of the Florida Pharmaceutical Association, Lakeland, Fla., June 19, 1925.

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The "Pharmaceutical Syllabus" of 1922 outlines a course in commercial pharmacy which in seventy-five clock hours is supposed to cover bookkeeping, business correspondence, commercial and business law, and business practice. Of course, one cannot give a sound business training in seventy-five hours. The new School of Business of the University of Florida and similar schools give four-year courses in business training and even then they do not claim to turn out finished business men. On the other hand, thousands and thousands of men who have never read a book on economics or business have made very fine successes in business.

One frequently hears the statement that a pharmacist's time is taken up chiefly with business problems and that, therefore, the pharmacy colleges should devote a great deal more attention to business courses. If the time devoted to commercial subjects is increased, the course as a whole would have to be increased, say, from three to four years, or the time allotted to scientific and professional subjects would have to be decreased. Graduation from a college of pharmacy is required by law of all prospective pharmacists in a large and constantly increasing number of states. Now what is the intention of such a law? Is it to give pharmacists a training in business or a training in pharmacy? The Committee on the Pharmaceutical Syllabus might well ponder this.

I doubt if any one would seriously claim that a hardware merchant should be required by law to attend a school of business. No state board examines prospective dry goods men to see if they are competent in commercial subjects. Yet some of our state boards of pharmacy give questions on commercial pharmacy, defined as bookkeeping, business correspondence, commercial and business law, and business practice.

To protect public health it may be desirable and necessary that every pharmacist be a graduate of a pharmacy college and that he be examined by a board of examiners to see that he is properly qualified, but can we or should we have laws requiring business training and that a man be examined on business subjects? In my opinion such a procedure is undesirable and probably unconstitutional.

It is a fine thing for a pharmacist to have a business training; however, in my opinion, such a course should be limited to business principles, and provision made for other commercial courses which the student may elect if he so desires. Some students would not be interested in such courses, some would register for them during the summer session, while others might study an extra year beyond the time required by law.

In regard to the age-old question of whether pharmacy is a profession or a business, I agree with Dean Charles H. LaWall that "pharmacy is a profession for every man who will make it one." And, lest we forget, it is the professional side of pharmacy that brings to the pharmacist special privileges and special obligations.

## HOSPITAL PHARMACISTS' ASSOCIATION OF SOUTHERN CALIFORNIA.

The hospital pharmacists of Southern California have perfected an organization known as the Hospital Pharmacists' Association of

Southern California. Twelve hospitals are represented. The officers are: *President*, P. Windsor Howard, Los Angeles; *Vice-President*, H. F. Fuller, Glendale; *Secretary-Treasurer*, Miss B. L. Blackiston, Los Angeles.