

# THE DEPARTMENT OF THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

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DEPARTMENT.

## PHARMACEUTICAL EDUCATION MAKES PROGRESS.

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In the early history of pharmaceutical education, as in the history of most professional education, individuals who were vitally interested in securing well-prepared practitioners organized colleges of pharmacy. This is especially true in the larger cities where groups of retail pharmacists, who were public spirited, joined together and often gave freely of their meager funds to launch a program of pharmaceutical education. Sometimes county associations were responsible for the organization of the colleges. These early colleges were interested primarily in giving professional education and, naturally, their early curricula included only the courses that were directly applicable to the work that their graduate was expected to do.

Many years later some of the state institutions saw the need of professional education in pharmacy and organized departments, colleges of pharmacy or schools of pharmacy within the state university. This was the first attempt of pharmaceutical education to secure support from the people. This movement rapidly advanced and to-day we have a considerable number of state universities that are giving instruction in pharmacy.

The American Conference of Pharmaceutical Faculties was organized in 1900 for the purpose that its title indicates, that is, a Conference. The leading schools of pharmacy in the United States held membership in this Conference and at the annual meetings exchange of opinions assisted much in the development of our professional education. It is but natural that representatives of the two distinct types of institutions mentioned above should clash in their opinions and if the annual Proceedings of this Conference were read from 1910 to 1920, this clash of opinion would be readily discovered. Out of these discussions has grown a decided advance in pharmaceutical requirements.

The first advance was made in 1920 when the minimum requirement was changed from one year of high school to two years of high school. After this first step was taken the advance became rapid. In 1923 the minimum requirement became that of high-school training or its equivalent. In 1925 the old two-year course was eliminated and the three-year course adopted as a minimum. At the last session of the National Association of Boards of Pharmacy a motion was passed to the effect that, beginning in 1932, a minimum requirement of a four-year course will be necessary for recognition by the N. A. B. P. At the same time the American Association of Colleges of Pharmacy accepted a resolution adopting a minimum four-year course in 1932. According to the By-Laws of this Association this resolution must lie on the table for a year and will come up for final action at the next annual meeting. No one can say what the Association will do with

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this resolution but, considering the action of the National Association of Boards of Pharmacy, it will be difficult for the American Association of Colleges of Pharmacy to fail to pass the resolution.

The above indicates a rapid progress—more rapid I believe than the progress made by any other professional educational program. Since pharmaceutical education lagged behind its associates it was but natural that the progress of advancement should be rapid, once it was begun. As soon as the first step was made no group or class of pharmaceutical colleges was responsible for the advancement, but a unified effort on the part of practically all the colleges continued the advance. Therefore, credit is due to the unified effort of pharmaceutical colleges.

#### LEGAL REQUIREMENTS.

An advance in legal requirements similar to that of college requirements is recorded. Rhode Island, New York and Pennsylvania were the pioneer states in this movement and were early in securing the passage of prerequisite laws. The past ten years have seen a considerable number of other states following their example. At present there are thirty-two states and the District of Columbia that have secured prerequisite laws or have them enforced by State Board of Pharmacy rulings. This leaves only a few states to join the majority and it is anticipated that the most important of these states will soon secure prerequisite laws. In several cases the state laws have specified that colleges recognized in the state must meet the requirements of the American Association of Colleges of Pharmacy and in one case the law states that recognized colleges must be *members* of this Association. As in the case of the advancement in pharmaceutical education, the advancement in law requirements indicates that pharmacy is rapidly coming forward.

Several colleges of pharmacy have not waited for the American Association of Colleges of Pharmacy to take its next step but have already eliminated their shorter courses and have adopted a four-year course as a minimum. Ohio State University, College of Pharmacy was, I believe, the first to take this step. It was very soon followed by the University of Minnesota, College of Pharmacy; University of Nebraska, College of Pharmacy, and the University of Notre Dame, School of Pharmacy. At a recent meeting of the Deans of the Northwest Colleges of Pharmacy the following institutions have announced that they will, in September 1930, eliminate all shorter courses and adopt the four-year course as a minimum: University of Washington, College of Pharmacy; State College of Washington, School of Pharmacy; Oregon Agricultural College, School of Pharmacy; North Pacific College of Oregon, School of Pharmacy. The Deans of the Indiana Schools of Pharmacy will meet on April 11th to discuss a similar step with the Indiana Board of Pharmacy so that any intended action can be presented at the next annual meeting of the Indiana Pharmaceutical Association.

Throughout this rapid advance in education and in legal requirements the National Association of Boards of Pharmacy and the American Association of Colleges of Pharmacy have had a very helpful influence and in many cases have taken the forward step. The retail pharmacists of the country are to be congratulated on their forward-looking attitude. In most cases where advance in college or legal requirements has been considered, the retail pharmacists have been quick

to assist and in many cases have been instrumental in taking the step. All of the above indicates that pharmacy has awakened to the need of better training for the profession and that all the interests have been instrumental in securing this better training.

#### CLASSIFICATION OF COLLEGES OF PHARMACY.

Up to one year ago there had been no organized attempt made to classify the colleges of pharmacy in the country. The American Association of Colleges of Pharmacy has for many years had a Committee on "Investigation of Pharmacy Schools by the Carnegie Foundation" and once a year they have asked this Foundation to undertake the investigation. Each time the request has been denied on the plea of lack of funds. The subject of classification of colleges of pharmacy has been debated many times on the floor of the American Association of Colleges of Pharmacy and of the National Association of Boards of Pharmacy.

#### INVESTIGATION BY NATIONAL ASSOCIATION OF BOARDS OF PHARMACY.

The state boards of pharmacy have had considerable difficulty in considering whether this, that or the other college should be recognized by them. It is a real problem for the State Board and one that must be solved before there can be full, satisfactory and efficient reciprocity by the states. Some boards of pharmacy, notably New York, Ohio and New Jersey have attempted to make their own classification by requiring the individual colleges to be registered in the states before recognition will be granted their graduates. At the last annual meeting of the National Association of Boards of Pharmacy a program of investigation of colleges was approved and it is my understanding that plans for this investigation are now being perfected.

#### INVESTIGATION OF MEMBER-COLLEGES BY AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY.

In the early history of the American Conference of Pharmaceutical Faculties, it was recognized that it was only a conference and any requirements passed by the Conference were not held binding except in the good judgment of its members. Later, these requirements were looked upon as binding and finally with the change of the Conference to the status of that of the Association its requirements became obligatory. The Association had no funds to pay for the investigation of its members to determine whether they were meeting its requirements or not. Comment was often made that non-members of the Association were maintaining higher standards than were some of its own members. Whether there was a basis of fact for these comments or not, the Association was unable to determine because it had no machinery for the enforcement of its membership requirements. It was only when a direct accusation was made against a member-college or the violation of the requirements were announced in the catalogs of the member-college that the Association was in position to use any executive action. At times the Association has been criticized for lack of enforcement of its rules and regulations, yet it was helpless except as above mentioned, because of lack of funds.

For many years the Association had a Committee on Classification of Colleges of Pharmacy. This Committee brought before the Association many recommendations which the Association failed to enact, primarily, because of lack of funds

for the purpose. At the last annual meeting the individual who had been Chairman of this Committee for many years was the President of the Association and again recommended the investigation and classification. The Committee on President's Address made the following recommendations which were approved and became part of the program of the Association: "For the purpose of strengthening the morale of our organization, a system of official visits shall be arranged by the Executive Committee, which will be planned so that each member-school shall be visited at least once in three years. These visits shall be made by trusted members of the Association, selected by the Executive Committee from adjacent districts. Reports of these visits shall be sent to the Chairman of the Executive Committee, who shall collate and arrange the material for presentation to the Association at suitable periods upon request."

In accordance with this action the Executive Committee has prepared an official visitation blank calling for certain information as follows:

Name of Institution Examined.  
Date of Establishment  
Name of Examiner.  
Time of Examination.

*I. Control, Organization and Internal Administration.*

- a. Relation of School to parent organization.
- b. Does the School enjoy all the privileges granted to similar units in the parent organization?
- c. Is the School budgeted? How budgeted? Is the executive officer of the School a member of the budgeting committee?
- d. How many separate departments in the School and what relationship exists between them and the School as a whole?
- e. Does each department receive its just share of funds for the work it has to do?
- f. Comments and suggestions for improvements.

*II. Financial Support.*

- a. How is the School supported?
  1. Student fees?
  2. Endowment?
  3. Taxes?
  4. Combination of these?
  5. Gifts?
  6. Appropriation?
- b. What is the tuition fee?
- c. What other fees must students pay?
- d. What is the total sum received by School per year? (a + b + c)
- e. What per cent of total income is derived from (a + b)?
- f. What is the student pro rata of total income (that is, quotient obtained by dividing total income by number of students enrolled)?
- g. Is the School adequately financed?
- h. Is all the expense of the School met by tuition and student fees or is there a deficit at end of year?
- i. If there is a deficit, how is it met?
- j. Comments and suggestions.

*III. Instructional Load.*

- a. How many clock-hours per week does each instructor teach, or administer laboratory work?
- b. How many student-clock-hours per each instructor? (Student-clock-hours are

obtained by multiplying the number of clock-hours by the number of students enrolled in the course (a course consisting of 2 lecture and 6 laboratory hours per week with 40 students enrolled will represent 320 student-clock-hours.)

- c. How many student-credit-hours per instructor? (The above courses in most institutions would represent 4 semester hours. Then  $4 \times 40 = 160$  student-credit-hours.)
- d. Comment on teaching load and suggestion for improvement.

IV. *Faculty. Report on Each Member as follows:*

- a. Name and age.
- b. General training.
- c. Professional training.
- d. Practical experience.
- e. Degrees received.
- f. Membership in scientific societies.
- g. Hours devoted to School (by this is meant, how many hours per week is the instructor present in school for service to the School)?
- h. Other outside regular employment.
- i. Professional or scientific publications.
- j. Comment on Faculty; suggestions for improvement.

V. *Plant and Equipment.*

- a. Buildings (approximate value of each and adequacy for service to which they are put).
- b. Number and size of lecture and recitation rooms.
- c. Number and size of instructors' offices.
- d. Number and size of general laboratories.
- e. Number and size of research laboratories.
- f. Are the above rooms modern, well lighted and well ventilated?
- g. Size of space devoted to library and reading rooms.
- h. Number of volumes in library.
- i. Use of library.
- j. Other available libraries.
- k. Adequacy of equipment for service.
  1. Pharmacy equipment.
  2. Chemistry equipment.
  3. Pharmacognosy equipment.
  4. Dispensing equipment.
  5. Research equipment.
- l. Comments and suggestions for improvement.

VI. *Curriculum.*

- a. How many days per week is each class or section required to be present for instructional purposes?
- b. Number of lecture and laboratory hours per student for each course devoted to
  1. Pharmacy: Lecture . . . . . Laboratory . . . . .
  2. Chemistry: Lecture . . . . . Laboratory . . . . .
  3. Materia Medica (including botany, pharmacognosy, pharmacology, posology and toxicology): Lecture . . . . . Laboratory . . . . .
  4. Commercial pharmacy: Lecture . . . . . Laboratory . . . . .
  5. Physiology: Lecture . . . . . Laboratory . . . . .
  6. Bacteriology: Lecture . . . . . Laboratory . . . . .
  7. Other subjects: Lecture . . . . . Laboratory . . . . .
- c. Total number of clock-hours in each course leading to a degree: Lecture . . . . . Laboratory . . . . .
- d. Degrees offered and requirements for each. Comments and suggestions.
- e. General comments and suggestions.

The Executive Committee of the Association has authorized the following official visits:

1. University of Michigan, College of Pharmacy; Detroit Institute of Technology, College of Pharmacy; College of the City of Detroit, School of Pharmacy. Visits to be made by Dean Edward Spease, Western Reserve University.
2. State University of Iowa, College of Pharmacy, and Des Moines University, College of Pharmacy. Visits to be made by Dean C. B. Jordan, Purdue University.
3. Ohio State University, College of Pharmacy; Western Reserve University, School of Pharmacy, and Ohio Northern University, College of Pharmacy. Visits to be made by Dean C. H. LaWall, Philadelphia College of Pharmacy and Science.
4. Purdue University, School of Pharmacy, and Indianapolis College of Pharmacy. Visits to be made by Dean C. A. Dye, Ohio State University.
5. Philadelphia College of Pharmacy and Science, Rutgers University, New Jersey College of Pharmacy, and University of Maryland, School of Pharmacy. Visits to be made by Dean W. F. Rudd, Medical College of Virginia.
6. Medical College of Virginia, School of Pharmacy; University of North Carolina, School of Pharmacy. Visits to be made by Dean A. G. DuMez, University of Maryland.
7. University of Kansas, School of Pharmacy; University of Oklahoma, School of Pharmacy; and University of Colorado, College of Pharmacy. Visits to be made by Dean R. A. Lyman, University of Nebraska.

Each visitor is asked to submit a report of his official visit to each college to the Executive Committee and a copy of that report to the School visited. Any criticism or comments for improvement that are made by the visitor will then be in the hands of the college visited and of the Executive Committee of the Association. It is expected that these official visits will be of value to the Association but also of value to the colleges visited, especially if these colleges are parts of larger units. These visits will give opportunity for the representative of the Association to meet with the executive authority of the larger units and, if necessary, ask for better recognition and support for the college of pharmacy. The Executive Committee will report to the Association at each annual meeting such items of particular interest to the Association as these visits bring out. It is not anticipated these visits shall present facts for the discipline of member-colleges but it is expected, as outlined in the original action, that such visits will strengthen the morale of the organization.

All of the above indicates that pharmaceutical education and pharmaceutical practice are making very rapid, forward strides and I believe that we, pharmacists, have reason to feel justly proud of the record of the past few years. It would seem, however, that it might be well to pause now for a while that we will be able to get a better perspective of what these advancements mean to our profession. The accusation that we have been going too rapidly never has, to my mind, had a basis in fact because the situation was such that it demanded rapid advancement if we were to retain the dignity and well-being of the profession. However, too rapid advancement may, in the end, defeat the very purposes for which the advancements were made and I, for one, believe that it would be well to pause and *very seriously*

consider any further advancement than that contemplated in the action of the N. A. B. P. and the A. A. C. P. The elimination of our shorter courses and the placing of minimum pharmaceutical education on a baccalaureate level should be sufficient for many years to come. This does not mean that the individual colleges should refrain from taking further forward steps, but I believe it unwise for the A. A. C. P. or the N. A. B. P. to raise the minimum above baccalaureate standing until we have had plenty of time to study the effect of these progressive actions and it will require many years to do this efficiently. Perhaps the time will never come in the lives of most of us when an advance in *minimum* requirements beyond this will be deemed necessary.

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### THE HIGH COST OF NEGLECT.

BY SAMUEL S. DWORKIN.

I have received many letters from physicians in answer to my article, "Try Your Neighborhood Druggist First," published in many medical magazines. They state the fact that quantities of biological products are being distributed by supply houses, who engage in this business only or, largely, in a commercial way, without any attempt to render a real professional service to the medical fraternity—is the fault of the druggists, because of their neglect in carrying a more complete stock of biologicals, the way of keeping them and because of lack of intelligent information relative to various products handled.

To me, it is only to start all over again. Many years ago, I stated that the neglect of the pharmacist in handling biological products and other modern products is hurtful—as with the advance in modern medication, with the striking new ideas in advertising to the physician, the open propaganda to the public for preventative medicine by various health departments, publications, insurance companies, etc., with pages devoted to articles pertaining to new vaccines and antitoxins in daily newspapers and other publications, creating a condition that the biological products are becoming greater factors in modern *materia medica* every day. It is a poor excuse for any pharmacist to refuse to supply them with present methods of distribution. Many manufacturers have established distribution depots and jobbers handle these products properly.

The pharmacist is the logical distributor of all medicaments and it should be recognized by every druggist that the physician of to-day is one of the principal guardians of public health and the professional pharmacist is the other. By proper attention to the needs of physicians, a closer bond of coöperation will be established between the medical and pharmaceutical professions.

Only a few words are necessary relative to the care of biological products. Proper care should be given to biological products and to all other medical preparations; special care must be given to biologicals in stock under refrigeration, in checking up the stock of outdated potency and, naturally, prompt delivery of orders. Information relative to the uses, etc., may be had from leaflets and booklets on the subject issued by manufacturers; most of them are not technical; manufacturers will also supply them for distribution among physicians.