

represent our profession in this field. The best people are needed, but they must be backed by a profession consisting of men and women representing pharmacy at its best. Every individual is a representative, and it is necessary that they conduct themselves so that no reflection be cast on the profession.

Retail pharmacists are realizing that if their businesses are to survive they must get back to professional pharmacy. This move will strengthen the standing of our profession; it will rebuild confidence in the public and develop a definite need and service for the medical profession.

Much ground work is necessary for the building up of a strong organization. In this direction we have attempted to advise all hospital pharmacists about the establishment of this sub-section, but it is possible that many were not reached, as a complete list of pharmacists so employed was not available.

I wish to thank the deans of the colleges of pharmacy for their coöperation in supplying a list of their graduates who are employed in hospital pharmacy.

Our program at New York will be composed of papers dealing with the everyday problems of hospital pharmacists and, in addition, we hope to have an expression from the Pharmacy Committee of the American Hospital Association as to their needs in pharmaceutical service. Further, it is expected that some interesting information will be supplied in regard to hospitals now entirely without pharmaceutical service. Another important point for consideration is that of working out the details of the minimum standards for a hospital pharmacy. These problems require that all pharmacists become active and take an interest in this work; we have taken a forward step, and through coöperation with the American Colleges of Surgeons, American Hospital Association and American Medical Association we have a great opportunity for the extension of pharmaceutical service.

Dean Edward Spease, Secretary E. F. Kelly, H. A. K. Whitney and others are taking an active part in this work and we are encouraged by the interest of Hospital pharmacists and others.

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## A GRADUATE COURSE IN HOSPITAL PHARMACY.

BY LEROY D. EDWARDS.\*

The recent developments in hospital pharmacy have been extensive and rapid. The American College of Surgeons and the Catholic Hospital Association of the United States and Canada have adopted "Minimum Standards for a Hospital Pharmacy."<sup>1</sup> The American Hospital Association appointed a Committee on Pharmacy during 1936; a like committee will function during 1937. The AMERICAN PHARMACEUTICAL ASSOCIATION has established a sub-section on Hospital Pharmacy. These steps all point to the immediate future developments of pharmacy in the hospital, and definitely offer one interested in professional pharmacy an opportunity for action.

Immediately, a number of questions present themselves. Will the present-day pharmacy school graduate be able to meet the requirements as this movement grows? Will the hospitals of the future ask for better trained pharmacists? If so,

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<sup>1</sup> *Bull. Am. Coll. Surg.*, 21, 202 (Oct. 1936).

what will be the source of these better trained pharmacists? Since there is no place in the field of pharmacy where the need of properly educated and trained men is more essential, it stands without question that the hospitals will demand the highest type of pharmacist available. The answer to the question as to the source of these men is, for the moment, most difficult.

Some have already advocated that the education of the hospital pharmacist should more closely approach that of the physician. Such a hospital pharmacist, especially those in teaching hospitals and in hospitals associated with universities, will be expected to produce pharmacy's share of research. He must be equipped to manufacture pharmaceutical products of all kinds on a scale large enough to satisfy hospital needs. He must be able either to do or to direct the analytical work necessary in standardizing his products both chemically and biologically. In a hospital that does not maintain a bacteriological laboratory he must be prepared to make many tests and checks, and where one is maintained, he must know wherein it is useful to his work. Certainly he will be called upon to prepare the many stains used in biological and diagnostic tests. He must have a knowledge of drugs and supplies that will qualify him to form specifications for buying even if he does not perform the act of buying. He must be familiar with the use and availability of professional supplies, *i. e.*, instruments, rubber goods, gauze, etc., to the end that the nurse and the surgeon have at hand all needed equipment. He must be able to prepare and sterilize parenteral medications. He must be acquainted with all the departments of a hospital and their functions in order that he may know exactly where the pharmacist fits into the whole. With such a background, he will better understand the physician's work and needs—he will truly become a physician's helpmate. And, above all, he can be given the proper recognition which is so necessary for the future progress of hospital pharmacy.

Throughout the present school year the staff of the School of Pharmacy and the pharmacist of the University Hospitals of Western Reserve University have given this problem considerable thought. As a result of this work a list of courses available to those who wish to do graduate work with a major in hospital pharmacy has been submitted for publication in our *Graduate School Bulletin* of June 1937. Such a student may select courses in analytical pharmaceutical chemistry. He may serve in the several departments of the hospital pharmacy which is composed of a large out-patient department filling 65,000 prescriptions annually, a utility drug corridor, the pharmacy proper, the professional stores and the parenteral solution room. He will have the opportunity to receive instruction in bulk hospital manufacturing and control work as carried out by the laboratories located in the School of Pharmacy. In addition many related courses such as biochemistry, bioassays, microscopy, problems in compounding, pharmacology, bacteriology, etc., will be available.

Such a program as outlined above is made possible by the fact that the School of Pharmacy of Western Reserve University is responsible for the conduct of the pharmacy and enjoys the sole privilege of pharmaceutical research in The University Hospitals of Cleveland.