overcrowd our present teaching facilities, and so it goes. The temptation is probably common to most of us who have to do with the business end of education. There can be but one safe guide and it is extremely difficult to follow, wiz., plan so that we can give sound fundamental education, not sham. We must be absolutely fair to those whom we matriculate, for they trust us. We are almost completely moulding the ideals and practices of pharmacy of the next generation. Absolute honesty, devotion solely to the best interests of those whose pharmaceutical needs we are responsible for, is the only safe guide and it is hard to follow.

Frankly when I sit quietly and reflect that upon the school of pharmacy of the Medical College of Virginia the whole people of the state are largely dependent for high, clean, efficient pharmaceutical service, I am overwhelmed with the responsibility and am convinced that this feeling is shared by my co-workers. Surely if we are ever able to even approach our ideals for this service, we will have no trouble in putting at least one correct interpretation upon the subject of this paper, Education for Profit.

## PHARMACY TEACHER-TRAINING.\*

## BY FREDERICK J. WULLING.

During the past year I have had eighteen requests to nominate men to teacher positions in colleges of pharmacy, none of which I could comply with because none of our students or recent graduates except one had chosen the field of teaching. To fill the vacancy that occurred in our own faculty instructor division, our lowest and beginning rank, we had fifteen applicants, none of whom had any special training in the art of teaching. With very few exceptions, the faculties of professional schools are made up of men and women who have had no special training to fit them to become teachers. Their qualifications, in their respective technical fields, it is to be presumed, are sufficient. Their qualification as teachers may or may not be adequate but my own recent experience in engaging pharmacy teachers, and that of many others with whom I have discussed the matter, reveals a distinct lack in applicants for teaching positions of teaching training. The wonder is that there are so many good teachers among the faculties of professional schools. Of the many who are admittedly poor instructors, we need not speak here.

Because of the recent and accelerating advancements in pharmaceutical education, the demand for teachers of pharmacy is increasing rapidly. There appears to be no sufficient recognition of this demand by students generally and many to whom this demand has been made known appear not to be interested. The few who are interested and to whom the necessity nowadays of special teachertraining in addition to professional training has been pointed out, find no provision in our schools of pharmacy for that kind of training. That a growing need for such additional specialized training exists must be apparent to all executive officers in schools of pharmacy if not to the executives of professional schools of all kinds. The old belief that a technically trained person is also a good teacher has experienced so much adversity and embarrassment of late that it must and is

<sup>\*</sup> Section on Education and Legislation, A. PH. A., Des Moines meeting, 1925.

giving way to the newer and later conviction that advancing demands and enlightenment require special preparation on the part of those who want to become teachers and lecturers.

If Pharmacy is to succeed in its forward and upward program, it must, in selfdefense, create opportunities and facilities for those who choose the field of teaching to qualify adequately in that field. Once the opportunities are created, they will be employed by an increasing number of men and women who no doubt will be of a quality superior to that of the average pharmaceutical instructors of the present and past. Nothing disparaging should be said of the latter. In a large measure, the credit of the pioneer is due them. They have blazed the way and have made possible the advent of the standardized and professional teacher who is now on the horizon.

If the need that I have outlined exists, then it is clearly the duty of the colleges, or some of them, to recognize it and create the opportunities for the needed training. The function of colleges of pharmacy is primarily to teach pharmacy in its various technical fields. Whether they should afford opportunities in other fields related to pharmacy, has already been answered in the affirmative by those who feel justified in offering courses in business subjects. Business, however, is not a part of professional pharmacy as teacher-training would be.

The College of Pharmacy of the University of Minnesota recently entered into correspondence with the dean of the College of Education and found him favorable to an arrangement whereby some selected pharmacy students can take appropriate work in the College of Education toward teaching qualification. Early in the coming fall conferences of the two schools may result in a joint recommendation in the matter to the University Regents. It is certain now that the proposed opportunities will not be afforded for any who have not obtained at least the bachelor of science degree in pharmacy. It is likely that the opportunities will go only to those who are candidates for the master's or doctor's degree in pharmacy.

Several colleges of pharmacy now offer five- and six-year courses leading to the higher degrees. Specialization is possible in these courses, but is limited to technical fields in pharmacy. Teacher-training could be rightly regarded as a new division of such field.

THE COLLEGE OF PHARMACY OF THE UNIVERSITY OF MINNESOTA.

## BARTRAM'S GARDEN.

Bartram's Garden, Philadelphia, the oldest botanical garden in America, is being restored. The Garden is now under the control of the Commissioners of Fairmount Park. While Bartram's will probably not be restored to its former attraction because of changed surroundings an effort is being made to renovate and restore the old house to as near an approximation of its original estate as is possible and make the garden of new interest to botanists.

Humphrey Marshall was a cousin of John Bartram.

The Scientific Monthly for July gives twentysix pages to an article by Dr. William Shainline Middleton, of the University of Wisconsin, to "John Bartram, Botanist."

Dr. Francis W. Pennell, a curator of the Academy of Natural Sciences, Philadelphia, has returned from South America. Mrs. Pennell and a niece, Miss Sara M. Pennell, accompanied him. Dr. Pennell is interested in working out the evolution of the fox-glove species, of which he brought back many varieties for study and classification, and also more than 10,000 specimens of other plant life.