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SHOULD COURSES IN BUSINESS ADMINISTRATION BE INCLUDED IN THE CURRICULA OF PHARMACY COLLEGES, AND IF SO, TO WHAT EXTENT?

A SYMPOSIUM.*

BY EDWARD SPEASE.¹

This is a subject involving a question, and a question that cannot be given a direct answer. It is a question that time and experiment alone can answer. Still many views and opinions may be given expression and thus aid in solving this problem.

First of all, pharmacy, like medicine itself, has undergone many radical changes during the past decade and will undergo many more in the immediate future.

We are meeting with new ideas, some born of clinical experience and some based upon conjecture and, perhaps, a few founded either upon ignorance or cupidity. These ideas have to do with the use of new drugs and new methods, the use or disuse of old drugs and appliances, and even with the partial use or entire disuse of drugs and appliances.

A business or profession such as pharmacy is greatly affected by all these ideas and must be extremely alert to keep abreast of the times. It never seems valuable to meet changing conditions with carping criticism, but better to attempt to meet conditions as presented and improve upon them if possible.

We seem now to have established a foundation for our educational program; that is, graduation from high school and a certain brief fundamental course in pharmacy. If this foundation is a good one we can build upon it. Let us meet modern conditions and assume that it is.

It would seem that if a school is to meet modern needs, it should require the two fundamentals above mentioned of all students, and then offer a choice of work toward the higher degrees. For the student of scientific turn of mind, let the way be open to proceed as far as he may desire; and let the same field be open to him of the mercantile or merchandising ability.

For this latter student, give him the same opportunities offered to students who expect to enter other mercantile fields. Let him enter the same courses of preparation that the son of any other business man wishes to enter.

* Part of the program of Section on Commercial Interests, A. Ph. A., Asheville meeting, 1923. It was requested that these papers and discussions be brought to the attention of the American Conference of Pharmaceutical Faculties.

¹ Paper read by E. E. Stanford.

The departments of business administration of our universities have pretty well outlined what they consider as proper preparation for business. They require certain fundamentals of college education, and they then add the courses in economics, banking, accounting, advertising, and so forth, to round out the curriculum. The student does not become a bookkeeper, but he becomes fitted for business. It might be well to offer certain applied courses dealing directly with pharmacy, after the student has acquired his knowledge of fundamentals.

It is the opinion of the writer, however, that certain short courses in bookkeeping, drug store merchandising, and what not should not be given, as they merely stuff the student's mind with pet schemes of individuals, which schemes may be entirely out of date by the time he is ready to use them.

I am old-fashioned enough to think that methods of salesmanship built up upon the gullibility of the buyer are on the wane. Business men are beginning to look at salesmanship in a larger way these days. If I could have my way, I would say for the schools to provide the opportunity and that time and modern needs will develop our students in the proper manner.

COMMENT.

E. E. STANFORD: If the time is not too short I will say just a word about some applications we try to make of some of these principles. We believe in experimental education; we do not think we have reached perfection yet. Every recent year we have changed our curriculum to some extent after taking stock from experience.

We offer three courses. The two-year minimum is limited practically to technical pharmaceutical subjects, but includes a course in English which receives the same credit as that offered to freshmen in other departments of the university. We included also for a time a course in commercial pharmacy, and have experimented with some of these brief courses in bookkeeping, etc., mentioned by the writer of this paper. We have eliminated them. Two years is an almost criminally short time to prepare a student even for his technical work, to say nothing of making a business man of him. It might seem ideal to graduate a high-grade technical expert, a man of culture, and a successful business man in one. But it can't be done in any two, three, or four years. A student is *not* a finished product—although a good many regard themselves as such. In all our courses we emphasize the development of the student's power to think and to observe. It is almost superfluous to say that, because all teachers like to think, they do this. But we believe it better to give our technical students as many cultural advantages as their time with us will permit, and frankly to admit to them that there are certain phases of their future work with which they will have to acquaint themselves by experience. It is a mistake to try to make a student think he knows a whole lot of stuff that has been half boiled down and shot in hypodermically against time. He is apt to be too favorably impressed with his own attainments in spite of all we can say. It is up to the retail druggist, as a practical business man, to take any overplus of cocksureness out of him, and to aid him to build business experience on the foundation of thinking-power and technical training he has accumulated. But don't expect a paragon of full-developed wisdom or skill of any kind in a man of only two years' training.

In our three-year course we aim to include some commercial subjects of a university grade. We are going on to the three-year minimum at the earliest possible moment.

Our four-year course, leading to the degree of Bachelor of Science, includes what might be termed a common freshman year in that it includes about a year's credit of cultural and general educational work. This is given, however, scattered throughout the four years instead of all together as a pre-pharmic year. We believe this for many reasons to be the better plan. Besides, under the Ohio law our men can count each year of our present four as a year toward the four-year experience requirement for eligibility to registration. A pre-pharmic year could not be so counted. We are trying to work out with other sections of the university a plan by which students of a commercial bent can take university courses in business administration and allied subjects, while those of a scientific turn can follow science and not take commercial work at all. Thus

we are trying to produce two types of four-year man—one a commercial man, with some of the fundamentals of a university business training, and one a scientific man, with university scientific training, prepared to go into research, manufacturing, and dispensing rather than into the business management of a retail drug store.

THEODORE J. BRADLEY.

In thinking over the topic assigned to me, I came to the conclusion that there was no better way for discussing it than by describing the experiment along this line that our college is carrying on. This experiment is costing us in the neighborhood of \$5000 a year, which may be all loss, but we hope it will not. There has been pressure brought upon the colleges of pharmacy for many years to teach some commercial pharmacy or business administration for pharmacists. We felt this pressure and finally sold ourselves the idea.

Many years ago we began experimenting with the commercial pharmacy, and our treatment of it was similar to that in many other colleges of pharmacy. The method was to devote a few hours a week during the school year to the subject, and it was carried on almost entirely by inviting experts in various lines to come in and lecture on related subjects to the class. These experts might or might not be pharmacists. When we discussed banking, we had a banker come in and give one lecture or two or three. If we discussed insurance we had an insurance man come in. If we discussed coöperative buying, we had a pharmacist who was interested in that, and the work looked very good. It was difficult to find out why the course did not meet with a proper response. The reason was difficult to find, but we believe that it was a failure, not because of the material but because of the method; that these were subjects that should be treated by the laboratory method, and that it wasn't of much use to teach pharmacists a subject which was near to their own interests, as accounting for instance, by having them listen to an expert accountant tell them about accounting. As soon as we realized that this was probably the reason of the failure, we decided that when we teach accounting or bookkeeping or banking, it must be by actual work, rather than by listening to somebody talk about it. Of course, these are extreme examples of what I mean. We found that when we had a banker tell us of his work, the class might be greatly interested while they were there, but the next week it was rather difficult to have them present, and so it went on from one subject to another; hence, we were convinced that the plan was not successful.

The old pharmacy course is primarily for the protection of the public. While the pharmacist receives the training, that training is primarily to put the practice of pharmacy into competent hands, and the benefit to the individual pharmacist is a secondary matter; also, this minimum training is necessary for everyone who is to be a licensed pharmacist. After students have secured this minimum training, there is a very sharp division of the road—there is a relatively small number of students who become greatly interested in the scientific side of pharmacy, and we have advanced courses along scientific lines, but there has been no provision for the larger proportion of students, who were, primarily, interested in the commercial aspects of pharmacy. We consider that the course is for all the students until they have acquired a minimum preparation as pharmacists, but at the end of that time, it divides into two parts, one made up of those who wish to go on with scientific study, and the other of those who wish to study business methods for pharmacists. This

is primarily for the benefit of the individual although it is true that a better business man is a better servant of the public too.

Harvard University and Dartmouth College, in our section, have successful graduate schools of business, and many of the universities and larger colleges have such departments. We felt that in order to put this work on the high plane that we wanted, and to obtain the coöperation of the Harvard School of Business, which we did secure, that we must model our course upon these graduate schools of business, excepting that we should apply the work to pharmaceutical conditions. Then the questions came up, how should we treat the subjects and who should be the teachers? We looked into these very carefully, and we were unable to find a pharmacist who had the requisite successful experience in business teaching. That was a very difficult combination, and we determined that we would have to do it the other way—would have to get a successful teacher of business, who could afterwards learn the pharmaceutical application of his work, and also to whom we should supply some pharmaceutical assistants to take care of the pharmaceutical parts of the work. We found a college graduate who was also a graduate of one of those large business schools, and who had nine years' experience in large high schools where he had been at the head of the commercial departments. He found the prospect of a change from high school work to college work attractive, and was glad to come to us. He is a hard worker, and is bringing out various treatises on accounting for pharmacists which are being published serially in a drug journal and will appear later in book form. We adopted the course two years ago this summer. We went at it quietly and announced in one of the numbers of our bulletin, that this course was to be given, only three months before the work began. The response was very slight, which again we were not sorry about, because it gave the teacher a small class to work with—it didn't exhaust him with routine work, while he was working out the details of his course; whereas, if he had started with a large class, which we might have secured by publicity, his energy would have been used up in handling the details of the work, and he would have had some difficulty in working out the course. We don't know that we are right in placing the course as a graduate course. We feel sure that we are right in developing a high-grade course of business, so that my answer to the first part of the question that we are discussing is—Yes, pharmacy schools should teach business. We are convinced of this. But the response has not been as great as it must be if it is to be given in a graduate course. We cannot go on spending several thousand dollars a year indefinitely on a course like this. If the number of students does not increase, satisfactorily, we shall put it in as a department of study in the under-graduate course. This would immediately increase the class to a large number.

This brings me down nearly to the end of my discussion, and to the second part of the question under consideration; namely, how much time should be given to commercial subjects in a pharmacy course? There are some who believe that commercial subjects should not be included in a pharmacy course at all and there are others who feel that we should throw most of the scientific courses overboard, and replace them with commercial subjects. We can't agree with either extreme, and we can't figure the proportion of time against the proportion of business that is done along commercial lines and along professional lines in a drug store. Under present-day conditions in the United States, the practice of pharmacy is largely

commercial, but we can't base our extent of teaching commercial subjects on the ratio between commercial and professional work in a drug store. To do so would be ridiculous, because the teaching of commercial branches has its technical side as well as pharmacy has, or any other branch of study, and we can't spend a lot of time in the teaching of subjects that have not been developed as teaching subjects. The methods of handling the teaching of commercial pharmacy have to be developed, and we can't give the time to it which would be perhaps a waste of time out of proportion to the development of the teaching of the subject. With these truths in mind, we believe that in a total pharmacy course, the amount of time given to commercial pharmacy could be in the neighborhood of 20 per cent. of the total time. That puts it on the basis of a regular department of study, comparable with the chemistry department, the pharmacy department or the materia medica department. We feel that it is on a par with any of these departments.

In conclusion, I wish to state that I do not believe that questions on commercial pharmacy should be part of a State board examination. Many of you may disagree with me on this.

CHARLES H. STOCKING.

Other participants in this symposium have expressed their views in regard to courses in business administration from the standpoint of the work being done along this line in the various schools represented. At Michigan, our greatest difficulty has been to find adequate time in our curriculum for courses of this character in spite of the fact that we have had a four-year curriculum since 1896. At this time the program of studies for the freshman year was identical with that of the College of Literature, Science and the Arts. About 1900, however, the elective system was introduced in the College of Literature, Science and the Arts, and the College of Pharmacy broke away from the all-freshman year idea. But even since that time, the requirements of the four-year curriculum have been very rigid, offering little opportunity for elective studies. Our two-year curriculum, which was discontinued in 1917, was made up entirely of required subjects, as is also the three-year curriculum which has been in operation since 1913.

It is a well-known fact that the best colleges of engineering have foundation courses that are required of all students during the first two years, followed by specialized courses for two or more years leading to definite degrees in engineering for the type of work done. Reed, in his recent report on "Training for the Public Profession of the Law," criticized legal education on the ground that law schools throughout the country give but one course for all, irrespective of the branch of the law the student may expect to follow. Some criticism has also been directed against medical education in recent years with this same thought in mind. A medical student desiring to specialize along certain lines has little opportunity because his whole course in college has been cut and planned along general medical lines only.

With these facts before us, the faculty of the College of Pharmacy began studying the situation in so far as pharmaceutical education was concerned. The results of this study gave us a three-year curriculum practically the same as in the past, and containing two three-hour courses in economics in addition to the two-hour course in commercial pharmacy that has been included in the three-year curricu-

lum for a number of years. Several vital changes, however, were brought in the four-year curriculum. Instead of laying down one rigid plan of study for all, as in the past, ample opportunity is now afforded the students to pursue studies which will fit them for the particular type of work they expect to follow after graduation. To be more specific, we have three plans, three curricula, leading to the bachelor's degree in three distinct and separate fields. The freshman and sophomore years are identical for all the students, specialization beginning in the junior year. What we term Plan "A" of the four-year curricula is intended for those who expect to go into general, analytical or manufacturing pharmacy. Plan "B" includes courses for the laboratory or clinical technician. Plan "C" is the one which interests us in this particular discussion on account of the fact that it is the plan which has been worked out at Michigan to include a considerable number of hours in business administration. This plan is intended for those who expect to take up work of a pharmaceutical administrative character in manufacturing plants and in retail stores. Of the 125 credit hours required for graduation, fifteen, or 12 per cent., are strictly of a commercial or business administrative character. Two to five hours of elective courses may be added to the list at the option of the student, making the percentage slightly higher.

I think Dean Bradley pointed out a while ago that the percentage of work that could be given along the line of business administration would reach a figure as high as twenty, or even possibly thirty per cent. of the total. Here is a figure that is considerably less, and yet is far above anything that was possible under our old plan. At the same time, this type of work is not forced upon any student. If a student wishes to follow scientific work entirely and does not wish to spend time in college with commercial courses he will select Plan "A" or Plan "B." We feel that this is the best way to handle the situation. A certain amount of freedom is, of course, permitted under any one of the plans of work due to the elective privileges. Thus a student enrolled under Plan "A" or Plan "B" may elect from two to four hours' work in business administrative courses, if he so desires. If he wishes to specialize in business administrative work of a pharmaceutical character he will naturally elect Plan "C," which includes all the basic courses in pharmacy, chemistry, physics, the languages, etc., in addition to approximately fifteen hours of commercial courses.

We feel it our duty, following up the experiences of the past and the demands of the present, to give opportunity for specialization in pharmaceutical administration to those who desire it. With the exception of a course in commercial pharmacy which is conducted by the speaker, all the courses in business administration are given by the department of economics of the university. We do not spend time teaching show card writing, window trimming, "scientific" salesmanship, etc., although we do touch upon these and other practical every-day topics of a commercial nature, and frequently invite proprietors of drug stores and others in commercial fields to talk to the students on timely topics.

The young man or woman entering retail pharmacy to-day with no training along commercial lines is seriously handicapped. We are all glad for the slogan—"Your Druggist Is More than a Merchant," but we are nevertheless aware of the fact that the good druggist is *also* a good merchant. The professional pharmacist who serves the public most faithfully and most efficiently must do business on a

profitable basis or he is eventually doomed to failure and his mission as a guardian of the public health from the pharmaceutical standpoint is lost forever. He attends a college of pharmacy to study chemistry, physics, bacteriology, physiology, pharmacy and other strictly professional subjects in order to be able to interpret and fill physicians' prescriptions and to dispense drugs and chemicals with safety to others and satisfaction to himself. And then when he gets located on his chosen "corner," he soon finds commercial problems facing him at every turn.

If he was unfortunate enough to attend a college of pharmacy giving no courses in business administration, he must travel a rugged road for no brief period of time until he becomes familiar with at least a few exceedingly important basic principles having to do with the conduct of his business. It is my opinion, therefore, that a college of pharmacy can, without serious interference with professional courses, offer some work of a commercial nature that will be of inestimable value to the future business man or woman in pharmacy. Furthermore, work of this character should be made a matter of choice with the student from the elective standpoint so that those who prefer to follow pure science as a life-work may have every opportunity to choose a complete curriculum of scientific subjects, and, on the other hand, so that those who desire courses of a business character may have equal opportunity for electing a reasonable amount of these.

ROBERT P. FISCHELIS.

In answering the question whether business administration should be included in a pharmacy course or not, I am rather of the opinion that we should have such courses running right along with the pharmacy course. In the early days of teaching this subject, it was difficult to arouse interest on the part of the student in business administration. I think this was largely due to the fact that so many of the proprietors of drug stores ridiculed the idea of having a college of pharmacy attempt to teach business subjects, and also partly due to the way in which the teaching was attempted in the beginning. I think, as Dean Bradley does, that if the course is to be given, it ought to be given properly, and it ought to deal in fundamentals. I cannot state any better example of what I have in mind than to call attention to the discussion we had yesterday on the teaching of chemistry by someone who is not a pharmacist,* so as to give the pharmacist a general appreciation of the science as a whole and not merely its pharmaceutical aspects. But, unquestionably, a method of coördinating chemistry with pharmacy is needed somewhere in the course. It was suggested that the coördination be brought about in the laboratory, and again, the laboratory method of teaching business administration is the only method that is going to be successful. It is proper to have the fundamentals of business administration taught by experts in their respective fields, yet I know of such courses which have failed miserably because the experts devoted their lectures to a discussion of high finance, in which the students had no special interest. Pharmacy students want to see the application of any subject in the curriculum to their future work, and it should be shown them soon enough to keep up their interest in the course. I find in going about drug stores—and I have made it my business in the last year to go into the drug stores more often than I had before, to find out

* "Chemical Education in Pharmacy Schools," by John C. Krantz, Jr., p. 785, *JOUR. A. PH. A.*, September 1923.

what the problems of pharmacists are, with the idea of helping to train men to meet those problems—that the managers of stores are not only leaving the pharmaceutical training of young men practically entirely in the hands of the college, but are also doing the same thing with business administration. There was a time when the proprietor of a drug store would teach a young man something, but in these days of keen competition, owners hire pharmacists with the idea of relieving themselves of certain responsibilities, and expect clerks to go ahead and assume those responsibilities without any further training in the drug store. They hire other men or women with much less or no pharmaceutical training to do the ordinary work of selling in the drug store. So we cannot any longer expect help from the store proprietors in training prospective pharmacists and that impresses me more than ever with the importance of giving business administration courses to the students, and stressing the application of such training to the retail drug business.

Coming down to what we do in our school, I can say that we can only give, at the present time, a course such as that outlined in the "syllabus." In some ways it is satisfactory, but in many other ways it is unsatisfactory. We make no pretense of giving courses in accounting and bookkeeping, because we realize that such courses to be of value must be given separately, but when it comes to advertising, selling, and allied subjects, we try to give the student some insight into the problems involved so that he will know whether a proposition when it is put up to him by a manufacturing house, or a wholesale house, is a good one or not for his store. So much literature on advertising and selling is sent to the retail druggist every day that we feel we ought to impress upon the student in some way the true value of such material, and we try to stress the professional viewpoint throughout all our teaching of business administration.

There is another reason why there should be coördination in the teaching of business administration and the courses in pharmacy. It ought to be impressed on the student that the reason the drug store is different from any ordinary merchandising establishment is because there is a pharmacist in charge, and the store has a professional atmosphere. We feel that we ought to stress the "more than a merchant" idea and we do this by not decrying legitimate commercial enterprise but by pointing out at every stage how professional atmosphere and professional practice represent the greatest asset of the so-called commercial pharmacist.

FREDERICK J. WULLING spoke briefly and asked that he be privileged to submit a paper, "The Imperative Need of Higher Educational Standards," instead of his remarks.

ABSTRACT OF DISCUSSIONS.

FRANK H. FREERICKS: A business course in a college of pharmacy is out of place in the curriculum of a college of pharmacy. If the colleges of pharmacy would devote the same amount of energy and the same amount of money in seeing to it that the retail pharmacist has the opportunity to practice pharmacy, then the colleges would be serving the cause of pharmacy far better than by the introduction of a business course in the curriculum.

W. BRUCE PHILIP: In the University of California, we have had for three years a course in commercial pharmacy of one hour a week, for the senior class—and it has been my pleasure and privilege to give that course. I am the only retail drug store owner on the faculty, and that may be one of the reasons why it was allotted to me to tell the pupils something of commercial pharmacy. I wonder if you realize that the college of pharmacy teaches the analysis or the synthesis of everything that the druggist comes in contact with; those having had the course in commercial phar-

macy. If you mention anything in botany or plant life, the students can immediately start with where the plant comes from and they can carry the analysis down to the finest definition of the cell, or even the constituents of the cell. A mineral is mentioned, and they immediately think down to the elements, etc. So you have a person trained in the analysis of things he comes in contact with, and during this course in commercial pharmacy, we simply desire to show the analytically trained mind that the same values can be applied to business in all its phases. This is the idea of the course. We are not definite in demanding that the student answer any of the questions in the four quarterly examinations in an exact way. He has the privilege of using his analytical mind to determine the answers.

Now what do we give? We start first in the analysis of the prescription work—each student must fully analyze this. Then we take up the types of drug stores, analyzing them briefly. Then we study locations, analyze why locations are good and why others are bad. We start with the outside of the drug store—the value of light and other advantages, letting the student continue beyond the lecture. Then we take up the inside arrangements, the value of show cases, of prescription and other departments. We show what becomes of the wholesale order and how to order in a wholesale way; that is, we consider the order from the moment it leaves the drug store through the wholesale department back again to the drug store and on to the shelf. These things are gone into with an idea that there is always a simple, correct way and sometimes there are several ways of doing each particular part of the drug store business. We also give a brief analysis of salesmanship. Two things we emphasize in salesmanship—one, truth in salesmanship; second, the need of knowledge relating to the goods. Then we bring to the student the value of his botany; the selling value of everything he learns outside of commercial pharmacy—the importance of how to get a position, and, briefly, how to employ help. Then, if it is possible, we go into the study of sundries; for example, we take rubber goods, have a table of samples and show hot water bags, etc., and explain why some are colored and some are not—what a breast pump or stomach tube is. Other lines are somewhat similarly explained. We dwell on the value of drug publications, letting the students know that each drug publication is a post-graduate course in pharmacy and through the very brief explanation and display of trade magazines, show their value in pharmacy. This in a superficial way is the outline of the course.

Mr. Philip then cited several gratifying results of the work.

F. W. E. STEDEM inquired of the speaker whether students are taught when not to sell. Mr. Philip replied that there were two sides to all questions and failure to present both represented inefficiency in instruction.

LEON MONELL: It is necessary for anyone in the business of pharmacy to have a certain amount of business training. The amount depends on the kind of business being conducted, whether of a professional or commercial type.

The average professional business man is overlooking the facts when he says it is not necessary to have a commercial training in pharmacy. No pharmacy can be conducted without it. It also requires the highest type of training.

To develop the professional side, you must go out and sell your services to the doctor and there is no problem as difficult as to try to sell a professional man. This demands the highest type of salesmanship.

I think that commercial courses should be put in the curriculum of all pharmacy colleges. We should not compete with the schools of commerce. Anyone who intends to become the president of a chain of drug stores, or is going to do merchandising, should go to a school of commerce.

I believe that if you try to train a man to become a good pharmacist, you should select a man with a mind that knows pharmacy as well as one who is commercially trained. The schools of pharmacy should divide the third year, which should be optional, giving either a professional year for those desiring it, or a commercial year for those entering the commercial drug stores.

FRANK H. FREERICKS: When this matter was up before, I rather briefly expressed some convictions I had on the subject. I have been much helped by what we have heard from Mr. Philip this morning, and I can see how, in the way that he undertakes to teach a more or less commercial subject, he is doing a real good, but, nevertheless, I still hold the conviction that there is no place for so-called commercial pharmacy in a college of pharmacy. The field of a college of pharmacy is to prepare the student to practice pharmacy; his commercial education and knowledge should be acquired just as any other man acquires business knowledge in any other business

pursuit. I do believe that this cry for teaching of commercial subjects and this call for business instruction in colleges of pharmacy is almost entirely due to the fact that the faculties of colleges of pharmacy—who have been so very largely instrumental in securing our prerequisite laws, of which I very heartily approve—have been feeling that the complaint of the student after he graduates is justified, and that complaint of the student is, "Here I have been spending two or three years to acquire all kinds of knowledge, to acquire an education in pharmacy, and now I am out in the world, and I have no use for it, I may not apply it." I say the colleges are realizing that complaint to be justified, and for that reason they are going into a field that does not belong in a college of pharmacy. They want to give the student in a college of pharmacy something the student feels is of value to him, but which he should have acquired either by practical experience in a drug store or by attending some school of commerce.

My idea is that colleges of pharmacy instead of devoting energy and expense in teaching subjects that do not belong to colleges of pharmacy, should devote that same energy and same expense toward changing conditions so that the graduate in pharmacy can practice pharmacy after he goes out into the world. I do believe that the colleges of pharmacy can do a world of good in bringing retail pharmacy back to the pharmacist by coöperating with colleges of medicine and giving the student in medicine an opportunity to go into a college of pharmacy, gratuitously, if necessary—I should say by all means gratuitously—give him an opportunity of learning something about pharmacy and drugs in the colleges of pharmacy. If the colleges of pharmacy and their faculties would devote themselves to closer contact with the faculties in medical schools, in order to bring home to the medical men and students the writing of prescriptions, and the knowledge of therapeutics, in a few years much could be accomplished.

D. F. JONES: It occurs to me that Mr. Philip has had such experience that he views the matter from a different angle.

I sometimes wonder how many members of faculties present the idea that the student has invested in technical training a sum amounting to from twelve hundred to two thousand dollars; that this amount of money is an investment, and should be expected to earn dividends, just as money invested in stock. This fact should be pressed home: that he should continually be selling his professional services, and the oftener sold, the larger grows the stock.

I doubt very much if the average faculty member has the vision that will put across this idea in such a way that it will stay with the young man through the rest of his life. Again I say that I think Mr. Philip, through his peculiar experience, has the retailer's viewpoint.

I have observed that with the introduction of a business course in schools of pharmacy, many graduates, having a thousand dollars at their disposal, immediately proceed to compete with the department store, with thousands of dollars at their disposal, and years of business experience; and the Greek who in the conduct of his business, can live on what the druggist wastes.

If he were taught to use his technical knowledge in a practical way, avoiding the keen competition of those experienced, we would gradually have built up about the country, well established retail drug stores, that could serve their communities in a creditable as well as in a profitable manner.

JOSEPH JACOBS stated that the discussion was very interesting to him. He had a paper at the Denver A. Ph. A. meeting along the lines indicated by this discussion. In his opinion pharmacists should be in position to derive a livelihood from their activities, that this is essential for holding up the standing of the profession, and when merchandising is honorably conducted, the one who does so reflects just as much credit on the business and the profession as the one who exclusively follows pharmacy. He referred with a degree of pride to the fact that he, who was classed among the merchandisers, had been honored by the University of Georgia with a degree of Doctor of Science and had been given charge of the botanical garden at the university. A pharmacist should not neglect pharmacy, and it is possible to do this while providing for further income if that is necessary for the business. The standing and dignity of the profession should be upheld.

FRANK H. FREERICKS granted that all Mr. Jacobs had said was of real value but did not pertain to the consideration of commercial courses in pharmacy schools. In his opinion the school of pharmacy was not the place to train a man for business.
