

SCIENCE

VOL. 81

FRIDAY, MARCH 29, 1935

No. 2100

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SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKEEN CATTELL and published every Friday by

THE SCIENCE PRESS

New York City: Grand Central Terminal

Lancaster, Pa. Garrison, N. Y.
Annual Subscription, \$6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

PHARMACY'S UNFINISHED TASKS¹

By Dr. ROBERT P. FISCHELIS

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THE preparation, standardization and dispensing of drugs and medicines constitute an activity which is indispensable to good medical care. How, where and under what conditions this professional activity can be carried on with greatest benefit to all concerned is a question that has been agitating many minds ever since the use of drugs in the treatment and prevention of disease became a part of the practice of medicine. It is not necessary to justify the existence of a separate group of practitioners to whom has been assigned the function of compounding and dispensing medicines. Pharmacists have made an important place for themselves among those engaged in providing good medical care to the people of all nations. The evidence of a changing attitude on the part of the public toward the organization of medical services, how-

ever, makes it advisable to examine, from time to time, our existing methods of furnishing pharmaceutical service and the systems by which such service is controlled.

The practice of medicine has been subjected recently to some searching inquiries on the part of professional and lay groups who are interested in providing medical care for all the people in fullest measure at a price they can pay. These inquiries have naturally included studies of pharmaceutical practice, and some interesting facts have been developed which should not be lost upon those most interested in the future welfare of the profession of pharmacy.

When we speak of pharmacists we do not necessarily limit ourselves to persons operating retail drug stores. As a matter of fact, a great deal of the practice of professional pharmacy is carried on to-day in places far removed from the corner drug store. The manufacturing function of the pharmacist, especially

¹Part of an address delivered at the Third Annual Pharmaceutical Conference of the College of Pharmacy of the University of Michigan.

that which is carried on upon a large scale, has been transferred to a very great extent from the retail drug store to the laboratories of manufacturing houses. The ordinary retail drug store has become very largely a distributing center for manufactured products, although much small-scale manufacturing is still carried on in some retail drug stores, and nearly all of them engage in the extemporaneous compounding of prescriptions. Hospitals, medical centers, group clinics, manufacturing and research laboratories, as well as college classrooms and laboratories and governmental offices and laboratories, are other centers of activity in which pharmacists carry on their specialized function.

Recent surveys indicate that less than 10 per cent. of the retail drug stores of the United States carry on a sufficiently extensive prescription practise to maintain themselves economically, while the other 90 per cent., or more, although prepared and equipped to supply prescription service when, as and if needed, are able to do so only because their establishments are used to supply other services and commodities at a reasonable profit. In short, the public has cheerfully subsidized the professional services of the corner drug store for emergency needs by making it a source of supply for many related and unrelated commodities and non-professional services.

The drug store as a social institution has made a place for itself in every community. However, the profession itself has been unable to control the number of establishments seeking to supply pharmaceutical service, and no attempt has been made by our federal, state or local governments to regulate the supply of establishments organized to give pharmaceutical service. What is more, the attempt to regulate the quality of service has been rather limited. All states require some form of licensure of those who wish to qualify as pharmacists. Many states also have a licensing system which serves to control the establishment of pharmacies. However, the requirements for obtaining a license to operate a pharmacy offer no great hindrance to any one desiring to open such an establishment and carry on a business in drugs if registered pharmacists are employed. Hence the public control of the drug business leaves much to be desired.

Not only is there lack of uniformity in the licensing requirements for pharmacists and for the operation of pharmacies, but there is also, even in this enlightened day, considerable opposition to a strict legal control of the compounding and dispensing of drugs and medicines. Pharmacists by their training acquire a wholesome respect for the dangerous nature of the drugs and medicines with which they come in daily contact. This respect is not shared by the general

public, if the attitude of many of our legislators is any criterion of public opinion.

The blame for this situation undoubtedly rests very largely with the profession itself. We have been entirely too careless in preserving our professional prerogatives. Little by little we have permitted the encroachment of unfriendly interests upon our domain. If such a situation were merely detrimental to the profession of pharmacy, it would be of only passing interest to the world at large.

EXTENT AND TYPE OF SERVICE

We have, in the course of years, developed between fifty-five and sixty thousand "service stations" throughout the United States which are known to the average citizen as drug stores. We like to call them pharmacies because in our minds there is a distinction. The number of drug stores has developed consistently with the development of our national population. It has remained at a level of about one store per two thousand people for the last forty years, although the distribution is by no means as satisfactory as these figures imply. These "service stations" have endeavored to adjust themselves to the needs of the community in which they exist. We have the small country drug store serving rural communities, filling comparatively few prescriptions, because physicians in these districts carry their medicines, to a great extent, but stocking large numbers of ready-made medicines, "patent" medicines, home remedies, and also a great variety of unrelated merchandise. By virtue of the commerce in unrelated articles, this type of store is able to make a living and at the same time it is prepared to supply such professional services as may be called for when the occasion demands it.

We have also developed the neighborhood type of pharmacy in our larger communities and in metropolitan centers. Here the compounding of prescriptions and the dispensing of drugs and medicines is interspersed with a wide range of commercial activities, again for the purpose of maintaining the establishment so that its professional services may be available when needed. We have furthermore developed in some of these larger centers prescription pharmacies in which merchandising activities are reduced to a minimum. Such establishments are few in number. They furnish a marked contrast to the chain-store type of drug store in which high-pressure sales methods are applied to the distribution of ready-made medicines and general merchandise alike.

Undoubtedly there is a distinct need for the dramatization of the professional services rendered by the pharmacist. We may think the public is acquainted with the educational requirements for entrance into the profession of pharmacy, but the facts are that

even members of the medical professions are not all familiar with the advances that have been made in the requirements for pharmaceutical licensure in recent years. If the professions do not know it, certainly the public is even more ignorant of the advances in pharmacy.

Twenty-five or more years ago, some of our pharmaceutical journals began to urge pharmacists to "get out of the rut" and give shelf space to fast-selling ready-made medicines, toilet articles or general merchandise, and relegate the ornate and impressively decorated shelf bottles and other containers to the rear or the basement of the store. There was a rush to follow this advice, and as time went on and the mysteriously labeled containers of tinctures, fluid extracts, chemicals, powders and crude drugs were removed from public gaze, the professional function of the pharmacist passed out of the public mind to a considerable degree. To-day, after twenty-five years or more of hiding the evidence of professional activity, a new crop of pharmaceutical editors is urging pharmacists to bring their prescription departments out into the open and rearrange their stores so that the public can see what goes on in the prescription room and laboratory of the store. Just as blindly as the advice to relegate all professional fixtures to the back room and cellar was followed years ago, so to-day many are following the advice to remove all privacy from the prescription room and let the public watch the pharmacist prepare the medicines they are going to take. It may be necessary to counteract the previous removal of all outward signs of professionalism from the front part of the drug store with the sudden exposure of the entire professional activity of the drug store to the public gaze, but it is to be hoped that a happy medium will soon be found which will settle us, for a time at least, somewhere between the extremes of commercial overdress and professional nudism.

RELATION TO MEDICINE

The practise of pharmacy is fundamentally a subdivision of the practise of medicine. The practise of medicine is essentially an art which involves the intelligent application of many sciences. In the practise of medicine, as in every other field of activity, there must be a division of labor. We, therefore, have the diagnostician, the surgeon, the internist and the many specialists who, although trained in general medicine, have chosen to devote their life activities to one branch of the practise of medicine and have become experts in their particular field. In addition to the practitioners of medicine, there is a vast army of medical scientists who may or may not be trained in the practise of medicine as a whole, but who have mastered one or more of the arts or sciences without

which the practise of medicine would be severely handicapped. Under this heading come the pathologists, bacteriologists, roentgenologists, biochemists, pharmacists and others. Many of these medical scientists are trained in general medicine as well as in their own specialty. It is not rare, however, to find pathologists, roentgenologists and biochemists who are not doctors of medicine, and probably a majority of bacteriologists are not physicians. There are physicians who have specialized in the various branches of chemistry and in pharmacy, but by far the larger number of persons engaged in chemical and pharmaceutical work are not physicians.

If we look upon pharmacy as one of the specialized branches of the practise of medicine, we are, in a way, subordinating it to the practise of medicine as a whole. I see no disadvantage in this, although I am cognizant of attempts to look upon the practise of pharmacy as a separate entity. These attempts are, to my mind, undermining the solid foundation upon which professional pharmacy rests.

It is the function of pharmacy and the duty of the pharmacist, whether he plays the part of large or small-scale manufacturer, compounder or dispenser, to serve the physician and the public in the preparation, compounding and dispensing of therapeutic agents drawn from mineral, animal or vegetable sources. In the manufacturing laboratory, the pharmacist is a manufacturer. In the retail drug store he is a compounder and dispenser. In the research laboratory he may become the discoverer of new and better methods of administering drugs or he may devise new combinations of drugs or carry on important syntheses. These divided functions overlap at times, but they are becoming more and more distinct as time goes on. It is hardly conceivable that the need for extemporaneous prescription compounding will ever be eliminated. It is certain, however, that less and less manufacturing will be done by the prescription pharmacist, and that supplying simple and mixed pharmaceuticals in ready dosage forms, such as tablets, capsules, ampuls, etc., will increase to the point where extemporaneous compounding will be materially reduced.

Believing pharmacy's place in the art of medicine to be by its very nature auxiliary to medicine itself, it follows that there must be close cooperation with the medical profession if the dignity of the latter, as well as its high standing with the public, is to be reflected in the profession of pharmacy.

THREE FUNDAMENTAL TASKS

Underlying the continuance of a professional status for the pharmacist are three fundamental tasks, to the completion of which forward-looking members of the pharmaceutical profession long ago dedicated themselves:

(1) A program of education commensurate with the professional responsibilities to be assumed by the pharmacist.

(2) The advancement of legal and professional requirements for pharmaceutical licensure throughout the United States.

(3) The development of a professional solidarity among the practicing pharmacists of the United States for the furtherance of their scientific and economic objectives.

In the field of pharmaceutical education much has been accomplished, but much remains to be done. Shortly after it was decided that the minimum course in pharmacy should be raised to the level of the baccalaureate standard of training in other fields of education, it became apparent that such a minimum program meant a variety of things to different individuals and groups in the field of pharmaceutical education. The publication of the National Pharmaceutical Syllabus, with its outline of a curriculum for the four-year course, has not clarified the situation to the extent that one might reasonably expect. There are still educators in the field of pharmacy who talk in terms of hours and credits, as though education could be reduced to a mathematical basis and be administered in standardized doses to groups of individuals whose one outstanding group-characteristic is lack of uniformity in mental equipment, in aptitude and in educational background. In this connection, one is reminded of the discussions in the early days of standardization of pharmaceutical products by means of physiological assays. Pharmacologists reported that there was wide variation in their results of the determination of the physiological activity of tincture digitalis upon frogs. Some one slyly remarked that since the pharmacologists were all experts and their technique appeared to be perfect, the difficulty must be with the frogs, and therefore the thing to do was to standardize the frogs. As a matter of fact, methods have since been devised of measuring variability in the reaction of frogs to digitalis, but whether we can succeed in so altering or selecting the human beings coming to us for education in pharmacy that education in standardized and measured units may be applied to all with equal success is at least doubtful.

The tendency in elementary and secondary education is in the direction of greater individual attention to the student and a development of the faculties for which he shows a particular aptitude. In our colleges of liberal arts and sciences the trend is in the same direction. It is presumed, of course, that when an individual selects a professional course he is doing so because he has definitely made up his mind that it is a field in which he desires to work, and, furthermore,

that he has certain capabilities which will make it possible for him to qualify in this field. It is hardly fair, however, to place the entire responsibility upon the student. The college of pharmacy which accepts him has a certain responsibility which it should not shirk. One of the unfinished tasks of pharmaceutical education is the development of methods of selecting personnel from which future pharmacists are to spring. Unless the next generation of pharmacists develops a type of leadership which will carry the profession into fields of activity that are more nearly in line with developments in medicine and dentistry, we must look forward to a diminution of professional activity in the drug stores of the United States, and an increasing absorption of the professional function of the pharmacist by group practitioners and institutional organizations.

The recent attempt to include in a four-year course the cultural and basic education which it is acknowledged should precede the more technical training of the pharmacist may or may not be successful. Already we are hearing an increasing volume of critical comment against the present arrangement. It would not be at all surprising to find that within the next five years colleges of pharmacy everywhere will do what is now being done in some of our universities, namely, devote their entire time and attention to the technical training of pharmacists who will qualify for admission to the pharmacy course by completion of a pre-pharmacy course of one or two years, or perhaps graduation from a junior college. It is interesting to note in this connection that a study of the freshman enrolment in pharmacy colleges for the past ten years, throughout the United States, shows a gradual but steady decrease in the number who are choosing pharmacy for their life work. In 1924 sixty-six colleges of pharmacy in the United States enrolled 5,288 freshmen. In 1933 these colleges enrolled 2,469 freshmen. This represents a drop of 53 per cent. The drop has been gradual, but steady, up to 1930. In 1931 it was very slight. In 1932, however, it was extremely abrupt. This is, of course, due in part to the depression and in part to the four-year course. How much of the drop has been due to increasing standards is a matter of interest. As a basis for comparison, we have the statistics for the schools belonging to the American Association of Colleges of Pharmacy, all of which began the four-year course in 1932 or previously, and the schools of pharmacy in the State of New York which are not members of the association of colleges and which are not yet on the minimum four-year course basis. The figures are as follows: 66 colleges of pharmacy throughout the United States showed a drop in enrolment in the freshman classes of 39.2 per cent. between 1929, which was the peak

year of the boom period, and 1932, the year during the depression when the four-year course went into effect. Fifty-two of the 55 colleges of pharmacy holding membership in the American Association of Colleges of Pharmacy dropped 36.4 per cent. in the enrolment of their freshman classes during the same period. The six New York schools dropped 46 per cent. in their enrolment from 1929 to 1932. As they did not adopt the four-year minimum course in 1932, and as their drop in enrolment is greater than that of the schools which did increase the requirement in 1932, and also greater than the drop in all schools, it is safe to assume that whatever drop in enrolment there has been is due more largely, if not entirely, to the depression and to an increasing lack of interest in pharmacy as a career than to the increase in educational requirements.

The training for leadership in pharmacy can not be completed in the minimum pharmacy course. An effort must be made to select from among graduating classes a certain few who appear to possess the qualities which make for constructive leadership and the promotion of professional idealism. These selected representatives of our graduating classes must be given an opportunity to develop not only in scientific fields, but in the field of economics as applied to pharmacy, in the field of law enforcement as applied to pharmacy and in the field of teaching as applied to pharmacy. Unless greater opportunity is provided to train leaders in pharmaceutical thought, just as we have already provided for the training of leaders in the development of science as applied to pharmacy, our growth will be one-sided and we will continue to turn out a group of skilled pharmaceutical scientists on the one hand, a lot of mediocre practitioners on the other hand, with but few properly equipped leaders to guide the progress of the many in their attempt to apply the art and science of pharmacy to the problems that daily arise to plague the retail druggist.

LICENSURE AND LAW ENFORCEMENT

In the field of pharmaceutical licensure and law enforcement there are many major unfinished tasks. There is not sufficient uniformity in the regulations governing the practise of pharmacy and the dispensing of drugs and medicines in the various states of the Union. Fortunately, the American Pharmaceutical Association has had its attention called very forcibly to this situation, and it is hoped that with the completion and endowment of the headquarters in Washington it will soon be possible to undertake studies which will establish the facts about the existing order and lay the foundation for sorely needed reforms.

When the public once becomes conscious of the laxity with which the sale of drugs and medicines is controlled in the United States, it may be expected

that drastic changes will be advocated and put into effect.

On the assumption that persons familiar with the practice of pharmacy and engaged in that practise are best equipped to regulate it and to determine who is and who is not fit to practise it, practically all the laws governing the practise of pharmacy in the United States provide that boards of pharmacy shall be composed of licensed pharmacists who have spent a certain number of years in active practise and who are engaged in the retail drug business. In theory, no fault can be found with such an arrangement. In practise, however, it frequently does not work out. Some state laws provide that the persons to be appointed to boards of pharmacy shall be recommended by state pharmaceutical associations. They further provide that in making recommendations for the appointment, a certain number of those recommended shall be of one political faith and an equal number of the opposite political faith. Just what this has to do with the competence of an individual to judge whether an applicant is fit to practise pharmacy or not is not apparent. Just what bearing the political faith of a board member may have upon law enforcement is, however, quite apparent. There are states in which the political phase does not enter into board appointments at all. This does not mean that political pressure is not brought from time to time upon board members to do things which will favor certain individuals. However, if board appointments in the first place are made without political consideration, the board member is in a position to resist such pressure and hew to the line, regardless of the consequences.

The difference in educational standards in the various states, the difference in the personal standards of appointees to the boards of pharmacy and the difference in legal standards for the enforcement of regulations governing professional practise are so great that it is a tribute to pharmacy in general that things have gone along as well as they have. How to bring backward states into line and what to do to impress members of a legislature with the importance of fair and honest regulation of the practise of pharmacy constitute a problem to which pharmaceutical organizations and high-minded pharmacists have devoted much time and attention. Considerable headway has been made, but much remains to be done.

The make-up of boards of pharmacy at the present time is such that the public is apt to accept at its face value the argument that pharmacy laws are being enforced for the benefit of pharmacists rather than for the benefit of the public. This is particularly true when it comes to the sale of drugs and medicines through outlets other than established retail drug stores. Unfortunately, the public loses sight of the fact that drugs and medicines and even packaged or

patented medicines are not mere merchandise. Many a proposed pharmacy law has been defeated in the legislature because of pressure brought by patent medicine interests and general storekeepers who feared a loss of trade and were able to convince members of the legislature that pharmacists were seeking monopolies. Perhaps the time has come in states where legislation for the regulation of the practise of pharmacy has been difficult to obtain to ask for the appointment of a commission of high-minded and public-spirited citizens to study the respective arguments and claims of those who favor and those who oppose legislation affecting the practise of pharmacy. Such a commission would soon be able to determine the relative merits of the claims made and would silence the opposition of those who are instrumental in withholding advancement of standards for pharmaceutical licensure, for no good reason.

Perhaps the time has also come when various states should add to their boards of pharmacy high-standing laymen of the type usually appointed by our governors to managing boards of institutions or to health departments. Such a lay board member would not be expected to act as an examiner of applicants for registration, but he should be expected to sit with the professional members of the board at hearings involving violations of the pharmacy act and in meetings where matters of public policy with respect to the sale of drugs and medicines are considered.

The addition of such lay members to boards of pharmacy, or to any other professional boards, for that matter, would add a view-point which would be very helpful, especially in these days when talk of socialization of the activities of members of the healing arts occupies such an important place in public and private discussion. They would also be in a position to act as interpreters of the view-point of the pharmacy board to the public.

A NATIONAL EXAMINATION

Another very helpful step in the improvement of standards of licensure, as well as standards of pharmaceutical practise, would be the launching of an effort to provide a uniform nation-wide examination in the fundamental subjects now given by the respective boards of pharmacy.

I have proposed that the National Association of Boards of Pharmacy conduct such an examination annually and simultaneously for the graduating class of every college of pharmacy in the United States, and that the results of this examination be certified to every board of pharmacy in the United States so that graduates of the respective colleges of pharmacy may receive permanent credit toward a registered pharmacist's certificate for these examinations if they pass them. It would then be necessary for the applicant

merely to submit, to the state board from which he desires to obtain a license, evidence of his personal qualifications and practical experience, and to be given a practical examination in the compounding and dispensing of drugs and medicines. Not only would such an annual national examination be an advantage to the prospective registrant because he would be able to qualify at a time when he is best prepared to do so, but it would also give confidence to all boards in the fitness of an applicant who may come into a state by reciprocal registration years later. Every board would know that political or personal influence had no bearing on the candidate's examination record. At the same time, each board would still maintain its prerogative of examining the applicant in the work in which it is most competent to test him, namely, the practical conduct of a pharmacy and the compounding and dispensing of medicines. Such a national examination would not be without influence upon the colleges of pharmacy, for it would act as a stimulus toward more careful study of the quality of teaching and testing within these institutions, inasmuch as their products will be measured by a common yardstick.

PROFESSIONAL SOLIDARITY

The final unfinished task to which I desire to refer is that of developing a professional solidarity within our ranks which will do for pharmacy what is being accomplished in medicine, dentistry, chemistry and many other fields.

We suffer not from a lack of organization or organizations, but rather from over-organization. Yet with all the state and local associations of pharmacists scattered over this broad land, and with two national organizations ready and willing to function respectively in the professional and economic fields, it must be confessed that no existing organization can to-day truthfully claim to speak authoritatively for the profession as a whole. It seems clear that the approach to professional solidarity must contemplate a complete understanding of the relative functions of our two national associations; a definite liaison between local and state and state and national associations such as we have in medicine and in dentistry; and the development of a mutual confidence which will throw the full weight and power of the individual pharmacist into his local association, that of the local association into the state association, and that of the state associations into both national associations. It will then remain for the two national associations to arrive at a basis for mutual helpfulness and cooperation. Those occupying high places in these national associations must bear in mind that they are the custodians of the ideals of the profession, of the beliefs its members cherish and of the faith which makes a unit of a mere aggregation of individuals.