

Contributed and Selected

A PROPOSAL FOR THE ELEVATION OF THE PROFESSION OF PHARMACY.*

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That Pharmacy, as it exists today, is not a profession in the sense that law, medicine and dentistry are, I think we are all, at the outset willing to admit. That it is, on the other hand, more than a business pure and simple seems equally evident. The Pharmacist thus appears in society in a double role,—he is a professional man and he is a business man—many say he is neither.

There are many reasons why this condition exists,—why it has been necessary for the pharmacist in America to become much of the tradesman; to step down, as it were, from a full-time professional schedule to that of half-time merchant and half-time pharmacist. But it is not my purpose to discuss with you at this time. I desire rather to invite your attention to another, and, as it seems to me, a far more important aspect of this subject, namely; Must pharmacy always occupy this middle ground,—stand aloof from the professions on the one hand and apart from the domain of business on the other? Why should this anomalous condition continue? Must the pharmacist always straddle the fence,—one leg in professional soil, the other on *business* territory? Must he always stand in the middle of the Rubicon, and, as Daniel Vorhies Pike, the Kokomo lawyer in the "Man from Home" put it, "Get hell from both sides?"

The old professional ideal in pharmacy is dead. It died with the advent of the modern pharmaceutical house. We should not try nor should we desire to bring it back. We must set our eyes towards a newer and better light and follow in its path as our fathers before us followed in theirs.

When I was a boy of fourteen, my father apprenticed me to a stern and exacting member of the old school,—a man who believed that anyone who did not make all of his pills, plasters, ointments, tinctures and even fluidextracts was unworthy of the name of pharmacist. I have vivid recollections of the old back-room where all of this "pharmaceutical cooking" went on; of the big black kettle in which we made our lead plasters; of the large percolators for making fluidextracts of sarsaparilla; of the way we rubbed and rubbed to incorporate the mercury with the lard in preparing mercurial ointment; of the hours spent in coating pills with balsam of tolu dissolved in ether,—but, as I look back on it all now, I can see the many crudities and imperfections that crept in in spite of our professional zeal and care. We had no way of determining the purity of the ingredients used in making our preparations; no means, except purely physical

* Read at a recent meeting of the Kansas Pharmaceutical Association.

ones, for testing the strength of the completed product; no machinery to make our pills round and mechanically perfect. We were, in other words, compounders of our own products and, therefore, professional enough but very inefficient as measured by modern methods.

The history of economics offers us a striking illustration of the futility of clinging to antiquated ideals. We are all familiar with the fact that the introduction of modern machinery revolutionized industrial conditions, bringing about disruption of the old trades. Society had to reorganize itself to meet the new conditions. Much hardship had to be undergone; many were the bitter denunciations of the new regime. And yet it prevailed.

The guild of stone cutters vowed eternal vengeance on the new machinery which cut stones better and faster than they could—they would have none of them; their old methods were the best, they wanted their old trade to be as it always had been and yet,—the machine prevailed.

Woman, who had up to this time always worked in the home, was with remarkable rapidity thrust out of that shelter and put into the factory; again the age prevailed, society could do nothing to prevent it.

There are many pharmacists who cling fondly to the old ideal of preparing most of their own preparations. In a measure the pharmacist must always do some of this, but it is futile for him to attempt to compete with the modern manufacturer in the preparation of an ever increasing number of pharmaceutical preparations. The manufacturer has at his command the purchase of the best drugs at the cheapest prices. He can make a preparation faster and, therefore, more cheaply. By working with large quantities he can subject it to a number of rigid checks to insure its absolute accuracy. In short, with his machine he can make a better product more easily than the retailer can without machinery.

If then, we are ready to admit that the old standards and ideals are outworn, useless because times have changed, we are ready to ask, Are there any new ones to take their places? Is there a set of new ideals for the modern pharmacist which will prevail in the present age, which will place him in the ranks of the professional man where he really belongs? I think there is, and, while a complete solution of the problem is not at hand, there are many avenues of light, some of which the present generation may only behold, and not walk in, while others are open for his progress, if he has faith enough and the strength to believe in himself and the willingness to turn conviction into action.

A profession remains a profession because in the long run—in terms of decades, its members perform a real service to society. The pecuniary reward for professional service is after all secondary. A specialist must first of all be desirous of curing his patient; of being interested in the case for itself. If he have only the desire to make a profit he soon fails.

Much of modern business today has become infused with this professional ideal of service. Many business men look upon their establishments as places where the public can be served—"After we have served you we will speak of the reward." The pharmacist was probably the first store-keeper to carry out his ideal. He "served better than he knew" when he first introduced the sale of postage stamps; when he put a telephone in a convenient place in his store for

the use of his customers, only to bother him; when he bought a city directory for the use of all and even furnished scratch paper free of charge. Many will say he did it to draw trade. (If there is much trade drawn in that way his competitors would soon have found it out.) No, he did it because he had a good heart; because, way down in him was the mouldering desire to be of service. He showed that he had the professional ideal. Here was humble service to be sure, but service it was. Something for nothing was the unformulated and latent slogan within him, but it was still there.

If you agree with me then that the pharmacist has within him the true professional desire of service, let us ask are there no larger and richer fields open to him in modern life? Can he not aspire to the plane of the physician and the lawyer and still remain in his chosen calling? Must he be content to sell postage stamps, furnish telephone and city directory to the people of his community or can he enlarge his sphere of action and in so doing also reap his due pecuniary professional rewards?

To those who follow the trend of modern medicine, nothing is clearer than that clinical diagnosis is becoming more and more subject to chemical and bacteriological analyses. The mere recital of symptoms by the patient does not satisfy the up-to-date physician. He is finding it increasingly necessary to check this information by actual chemical and bacteriological data. It is precisely here where the pharmacist can become the physician's colleague. Can give advice and help as a bacteriological and chemical expert, can aid in important diagnoses and thus earn the lasting respect of the individuals of his community. Precisely here, can the pharmacist take his place beside the physician as a real professional man and with him help in the elimination of pain and suffering. There are hundreds of things the physician wants to know which the pharmacist could answer if he only would, e. g., What does this urine contain? Are there any tubercular bacilli in this sputum? Does this throat swab contain the germs of diphtheria? Is this blood serum positive or negative for typhoid fever or syphilis?

All of these questions should be answered daily, many times during the day, but there is no one now to do it because the physician has neither the time nor the necessary equipment, nor even the technique for that matter, to carry out all of these tests. I think it a conservative statement to say that in most communities there is today a latent demand for at least 500 Widal tests for typhoid fever each year. And as we shall see later, the demand for analytical work does not begin to stop here.

We are living in an age of standardization, everything under the sun is being standardized; medical schools, law schools, schools of pharmacy, cities of the first class, cities of the second class, pure milk, ice cream, lemon extract and spirit of camphor. Many of these you see call for the services of a chemical analyst. We are also ever increasingly in need of the services of the analyst in our every-day life; to see that the products we buy are what they claim to be and to satisfy ourselves that the products we manufacture and sell meet with the required standards; an ever-increasing number of manufacturers, business men and private citizens need to have materials constantly analyzed. Here

again there is a vast latent demand waiting only for some one to do it; this milk man wants his milk tested; this ice cream manufacturer his cream, probably his sugar. A baker would gladly pay for an analysis of a flour he bought in large quantities, or his egg powder, or his cooking oil. A manufacturer wants to know if the water he uses is suitable for use in his boilers, or if the coal he bought is what he contracted for. All of this work is truly professional in character. The pharmacist already has his store, his chemicals, his chemical training; and he is therefore the logical man to undertake it. If he rises to the occasion he cannot fail to advance himself, at the same time to elevate the character of his profession.

I have tried to show that there is a vast latent demand in every community for real analytical work of a chemical and bacteriological character, and that the pharmacist, by reason of his training and equipment, is the logical man to undertake it. I have also tried to point out that if he does attempt this work he will pull his profession upwards with him. The matter may probably be summed up in this manner. The modern pharmacist should be not a "pharmaceutical cook" whose ideal lies in making a few galenical preparations, but first of all a "prescription specialist," a man who understands how to compound a prescription accurately and scientifically, who can determine and check the purity and strength of the ingredients that enter into it by chemical and biological methods; and, in the second place, he should be a chemical and bacteriological expert to help the physician diagnose his cases; to help the manufacturer and the private citizen solve their chemical problems. He should be able to run for the office of city chemist and city bacteriologist. We don't have many such men in Kansas as yet, but we will have, and soon.

The time then seems ripe for the establishment of at least small analytical laboratories in connection with our drug stores, not excepting even those in very small communities. The beginnings may be small and modest. The outlay in money need be very slight. One may choose to specialize on only a few kinds of analyses at first, say, examination of throat swabs, sputum analyses, or Widal's test for typhoid fever, and then gradually widen out as one's experience grows. The druggist is always wanting to put in new side lines to improve his business. Certainly a departure of this sort would be valuable as a money maker after it was worked up, and it would do much to elevate the profession as a whole.

The laboratory should occupy a prominent place in the front part of the store. It may thus be made to pay for itself as an advertising medium. To say that it will improve the looks of a store more than the modern soda water fountain needs no argument. The effect it will have on the physician and also on the trade seems obvious. That it can be made profitable in most cases looks equally evident. What expense will be involved in the establishment of such a laboratory? To answer this question we must of course know on how large a scale we wish to operate. But suppose we get quotations on a moderate chemical and bacteriological outfit. An expenditure of less than \$500.00 will give us all we need, will equip us with first class analytic balances, microscopes, ovens, autoclaves, glassware and chemicals, will give us in fact a very good equipment for making most of the determinations we will be called upon to make. When this

amount is put along side of what a good many druggists pay for soda fountains, many of which do not much more than pay for themselves, but are only used to draw trade, I think you will see that a neat analytical laboratory will serve the latter purpose much better and, at the same time, fill a real need. The expense of operating such a laboratory need not be very large. Many druggists detail a man to look after soda-water and cigars and sundries, at a cost of \$50 or \$60 per month. The average young man that enters the analytical laboratories of our large corporations after leaving college begins at \$60 to \$75 per month. A bright graduate of the three or four years' course in pharmacy has all the basal education he needs to begin in such a laboratory and can help with the general drug business until there is enough work to occupy his entire time in the laboratory.

There is one matter, in this connection, that I wish particularly to call your attention to at this stage: The pharmacist has for years received in our schools of pharmacy a good chemical training but he has not made proper use of it. He has, it seems nearly always, taken a back seat, has not mixed in the fray, and consequently, in a short time after leaving college, he feels incompetent to anything more than fill prescriptions or sell cigars. Imagine a physician doing the same. He comes out of college as "green" as the pharmacist, but he has to "pitch in" and do things he has never done before. He does things every day which he never was taught how to do while in college. Naturally, most pharmacists have not been through the routine of most of the common bacteriological and chemical tests that would be required of them if they set out to become analysts, but they have the basal education necessary and it is only a matter of a little study, nerve and practice for them to become experts along this line. Moreover, the routine analysis of milk, water, foods, drugs, urine, blood sputum, serum, etc., have become so systematized that details and directions of procedure are easily available. It only takes a little time and practice for any one with a pharmacist's previous training to become expert in carrying them out.

If you have followed me in the rather scattered remarks I have made you will see that I have tried to establish the following points:

First—That pharmacy as it is today is a "mongrel creation" without standing in either the professional or business worlds.

Second—That the old ideal of pharmacy as a place where galenical preparations should be manufactured has to be in a large part abandoned because of the futility and undesirability of competing with the modern first-class pharmaceutical houses.

Third—That while the pharmacist should progressively abandon making most of his galenical preparations, he should increasingly strive to maintain his standard as a professional man by becoming a better "prescription compounder" and should bend his efforts towards the accurate checking of the drugs he buys and dispenses, rather than to their manufacture.

Fourth—That I have tried to show that the pharmacist has never lost the professional ideal of service and that modern life has a place for him in which to exert his very best efforts in a truly professional way.

Fifth—We have seen that there is a vast latent demand for analytical work of a chemical and bacteriological character from both the physician and the public in general. This work the pharmacist should do and can do by establishing an analytical department (even though it be very small) in connection with his store.

Sixth—That the analytical laboratory will become a source of profit to the druggist, it will serve a real need in the community, and last but not least, by doing this scientific work, the pharmacist will establish himself on a plane with the physician and lawyer and thus elevate his calling to that of a true profession.

SOME THOUGHTS FOR TEACHERS.

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Almost every magazine one picks up and even the newspapers are printing articles criticising the public school system. No part of it escapes; the kindergarten and the university alike get their share. "What is Wrong with the College," "Why I am Poorly Educated," or similar titles are a familiar sight. Apparently, these critics of our schools lose sight of the fact that all sorts of people go to school and *almost* all sorts go to college. They forget that in the manufacture of anything the raw material controls the nature of the finished product; as some one has aptly said, "Critics of colleges never consider the kind of grain that comes into our hoppers."

We, who are teaching in colleges of pharmacy, cannot help wondering if we are in any way concerned with the imperfections, if those faults are in any way reflected in our work. We should expect, perhaps to see the chief evidences in freshmen classes and are at once confronted with the idea that possibly a large proportion of students conditioned or failed during this year can trace their difficulty to the public schools.

In any consideration of the subject, the mentally unfit, those actually lacking in capacity, may be disregarded. There are such, but very few reach college. The individuals who are below the average of intelligence are not many because they are eliminated earlier in their school career. Speaking of average intelligence it can be said with little fear of contradiction that any one of average intelligence who works conscientiously will get through college creditably.

To go back to the original question, there is no doubt that many general reasons are involved. Conditions are similar to those existing in freshmen classes in any professional school or even in the colleges of liberal arts. Perhaps, the whole situation can be summed up under two heads, insufficient preparation and lack of thoroughness in that preparation. Some colleges of pharmacy are handicapped in having students who are not graduates of high