THE TEACHING OF COMMERCIAL PHARMACY.*

BY HENRY P. HYNSON.

Strongly obsessed with a sense of the importance of this occasion and deeply impressed by the far-reaching opportunities offered me, I refrain from apologizing, explaining and, indeed, from reciting the usual opening anecdote, that might put me more fairly before you.

If you question why I regard the occasion of so great importance, I answer, without hesitation, that pharmacy and pharmacists are now suffering more from the lack of proper commercial teaching than from any other cause or, it may be, from all other deficiencies combined, and what affects pharmacy and pharmacists concerns all those with whom these have to do, meaning the multitudes who are patrons of pharmacists. And more, this is just the time when commerce and commercial things are claiming the attention of the world—next to war—and it is now that the best of the world's knowledge is being applied to commerce, and it is now that the difference between the commercialist and the professionalist, merely because of their vocations, has faded entirely away or into the faintest shade.

A word regarding our mutual responsibilities. While uncomfortably sensible of my own responsibility and fearing that I have presumed to accept one so great, I am not afraid to warn you that yours is even greater than mine. Not only must you try to understand me and comprehend my meaning, but you must put my offerings to the test and, if I am incorrect, you are, in duty bound, to find the truth upon this subject and not only set it upright in your own minds, but you, in your responsible various connections with this great institution and its unusual influence, and you, with your responsible connections with the drug trade and the pharmaceutical press of this great metropolis, considering the limitless influence of the latter, must make the truth, as you find it, felt all over this land of ours. I have no desire to flatter you and your city, but New York is now, or soon will be, "The World" and as goes New York, so goes the world. I should feel that I had filled my greatest possible mission, could I make you really appreciate how much you could do for pharmacy and then induce you to do it.

One may reach an age when he feels that he must not always make favorable criticism and when he must, for the good he may do, run counter to the views of others. I trust, therefore, that I may be pardoned for stating that I believe all the addresses which have heretofore been delivered before you upon different phases of commercial pharmacy have failed to impress you with the importance of making commercial training a prominent part of the curriculum of a school of pharmacy, because all of them, in my opinion, were distinctly post-graduate in character and did not set forth plans for the more elementary teaching of the commercial science, as it may be applied to pharmaceutical practice, nor did they show how practical a commercial course may be made.

I feel that I must protect myself behind an actual "wall of necessity" for this training, otherwise I will be pounded with the old well-worn protest that: "All this knowledge should have been acquired before the student enters a school of pharmacy," and I very confidently believe that those who would so argue know very little about the condition and character of mind that is required to take up this study. It is not the proper kind of study for a child—for an undeveloped mind. Educators discredit themselves when they include specific commercial training in

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a high school course. Commercial science is justly classified with the other practical sciences, such as those that are combined in a course of pharmacy. It is much the same as the different phases of engineering, and back of all this, as a greater support to the "wall of necessity" are the actual needs of the students, even high school graduates, which may be easily ascertained by requiring them to write a commercial letter, such as an application for a position or a request for credit. Scientific farming may have improved the quality of grain, but the mills must still grind the grist that is brought to them.

It has occurred to me that I may more successfully present to you my ideas regarding the details of a course in commercial pharmacy, by reading to you, as far as time will allow, from the manuscript of a treatise on the subject that I have had under preparation for a number of years, but which I have not hastened to finish and publish, because of my numerous enemies. "Oh, that mine enemy would write a book." And if I may be permitted to do so, I will give extracts and examples from the actual course I have been giving, with more or less changes, during the last fourteen years.

It will please and greatly assist me, if as many as are interested will bear with me patiently during the remainder of my address and, having heard what I have read and said, will be good enough to write me their honest convictions as to whether or not they believe such a treatise as outlined would be helpful to students of pharmacy, or if such a book, slightly or even greatly modified, would meet the needs of the time. For such criticism, I will be truly and greatly obliged.

From the proposed treatise I read as follows:

COMMERCIAL PHARMACY.

INTRODUCTORY DESCRIPTION.

Commercial Pharmacy, as contemplated by this treatise, includes all those doings, peculiar to the business life of the pharmacist, which are not usually regarded as scientific or technical and which have not been generally taught in colleges of pharmacy nor fully discussed in pharmaceutical text-books and other books relating to pharmacy. It has much to do with such practical and oftentimes intricate subjects as were formerly taught apprentices by their preceptors. It includes knowledge of general business principles, facility in business practices and familiarity with business forms; all of which are desirable and becoming accomplishments that will greatly assist their possessor in acquiring creditable pharmaceutical and business standing. They are qualifications such as all classes of tradesmen might use to advantage and are not peculiar to the drug business, but are such as are absolutely necessary to make one competent to properly conduct a retail pharmacy, maintain necessary credit and win financial success.

Leading credit men connected with the wholesale drug trade have freely announced the belief that the business education of pharmacists needs to be advanced and that a lack of commercial training is often the cause of many of them failing to meet their obligations, which means that, while they may be well trained in the scientific and technical phases of their profession, they are not, as a class, successful in a business sense; that is, do not accumulate money, a conclusion that is emphatically endorsed by pharmaceutical journals, leading writers and successful pharmacists. This defect in the preparation of pharmacists for business has been found, upon further investigation, to be so pronounced, that the National Wholesale Druggists' Association has thought it wise to urge its members to exercise almost a paternal supervision over retail druggists who deal with them, regarding their purchases, their investments and their book-keeping, which, although, no doubt, warranted, is, nevertheless, very humiliating to those of us who are ambitious regarding our calling.

Justice cannot be done the *profession* of pharmacy unless we accept the truth that, while the practice of the profession may, for purposes of profit, be dependent upon good commercial practices, pharmacy is not, itself, dependent upon them. The science and art of pharmacy

might be quite successfully and most creditably practised without the slightest reference to trade considerations, just as the science and art of surgery may be practised without the slightest consideration as to how much is done or how much it pays. Let it be understood, then, that trade—what is known as barter and sale—is not an essential part of the profession of pharmacy, but is merely incidental to it; yet, trading is the money-making feature of pharmacy.

The handling of articles which are entirely apart from the real purposes of pharmacy and which may be supplied without the use of pharmaceutical knowledge or pharmaceutical technic, cannot be considered a part of the practice of pharmacy, but, since the purchase and sale of many such commodities are largely made by pharmacists, they may be consistently considered in a treatise on commercial pharmacy, side-lines auxiliary to pharmacy, but not a part of it. This must not make it appear that they must receive different commercial treatment. Drugs and medicines are merchandise and subject to exactly the same commercial control as the side lines.

THE SCIENCE OF COMMERCE.

If we regard the science of any subject to be the exact truth concerning that subject, so far as the truth has been discovered, then we may very properly regard the truth that may be learned about commercial things and doings as the science of commerce. And this real scientific knowledge to be had about trade and trading, bears the same favorable relationship to haphazard knowledge of such practices that the true and accurate knowledge of chemistry bears to the superficial kind that is learned in practice without training. The real, truthful knowledge of commercial practices is the kind that we should try to acquire, in spite of the fact that what we call commercial pharmacy, necessarily, deals with money getting, with profit making and is largely influenced by such considerations.

Regarding the different classes of pharmacists, while it is true that there are qualified pharmacists and assistant pharmacists, proprietors, managers and clerks, the commercial line dividing any one of these classes from another is generally imperceptible. Therefore and because members of these several classes are constantly changing their relative positions, no attempt will be made, in this treatise, to provide special teachings for any particular class of pharmacists.

THE GENERAL AND FAR-REACHING USEFULNESS OF COMMERCIAL PHARMACY.

Those who are just beginning the study of pharmacy should gain, as rapidly as possible, commercial knowledge similar to that which may be acquired from the following pages, because the possession of some such knowledge will not only prepare them for promotion, but its use and application will greatly assist in securing the promotion and the greater financial reward that every properly constructed person desires.

To the registered pharmacist and salesman, it will be, for the same reason, most helpful and, to the manager, proprietor, member of a firm, or officer of a corporation, commecial accomplishments are, unquestionably, necessary, and, since a great many retail pharmacists develop into jobbers and manufacturing pharmacists, who must follow good business principles, this training, which is meant to be fundamental, will serve admirably as preparation for these larger fields of commercial activity.

FUNDAMENTALS: THE ADOPTION OF STANDARDS; FORMING MODELS FOR IMITATION.

The very first and, by all means, the most important move that a student of pharmacy should make, is the one which will establish standards for himself. He should fix in his mind models with which he may compare himself; by which he may ascertain his needs, discover his short-comings, and test his progress. Without these standards of models and without these comparisons, he will be unable to know how he should appear and act, or what he should study and how much he should know. While at school, standards of study are fixed for him, but, when he has successfully passed out of college, in addition to the standards for his personality, which he has already adopted, he must also create, for himself, social and business standards of excellence.

THE FIXING OF STANDARDS.

Nothing so greatly affects the progress and success of an individual as do the standards or models he has set up for himself, and these must be many, including those of: carriage, manners, cleanliness, conversation and character, in addition to educational and technical standards.

When looking for these, especially for standards relating to our own personalities, we should often go out beyond our own homes and out beyond our own circle of friends and acquaintances. We must ascertain if those among whom we have been thrown are what are known as "conventional," meaning in accord with the times and the better doings of the times in which we are living. One must not follow the mannerisms or styles of his natural surroundings, if these do not agree with what is accepted by the world as being in good form. This is best illustrated by the outrageous and disgraceful table manners of many reputable families, which, to follow, would ostracize one from anything like polite society. Extravagant or snobbish standards should not be thought of, but standards that are based on good usage should be adopted, such as would be acceptable to the majority of the more intelligent people of a community; acceptable, especially, to persons who are educated and have travelled.

Standards may not, necessarily, remain fixed, or the same, indefinitely. They should be changed as greater intelligence and better opportunity may indicate, but they should not be changed merely to agree with fads, so-called, or influences that are not creditable to follow, such as the tendency to imitate foreigners or those much given to exaggeration. Reference will be made to particular standards, while treating the various subjects that will follow.

THE PERSON.

The personality of the pharmacist, or of one who proposes to become a pharmacist, is of much importance. While pharmacy is a vocation requiring no great physical strength or power, it does require a considerable amount of endurance and, because the hours of attendance upon duty are comparatively long and because most of the time devoted to business is, necessarily, spent indoors, it is not the proper engagement for those predisposed to tubercular trouble or those with anamic tendencies. It is a business suited neither to a deformed nor to a crippled person; quick, well-ordered movements are required and extraordinary control and use of the hands and fingers are necessary.

As successful salesmanship is an important qualification of the pharmacist and since the personality of the salesman has much to do with his success, appearance, or address, as it is more politely called, must be seriously thought about, much thought about. One cannot, of course, change his features, neither can he materially alter his size, but there are some defects which may be remedied. The habit of stooping, for instance, may be and should be overcome, by thoughtful and determined effort; rounded shoulders may be corrected by similar effort, assisted by braces; an awkward, ungainly gait or slovenly carriage may be easily changed; bad, unsightly teeth may be improved or replaced by a dentist; nothing so greatly hinders good conversational effects as do imperfect teeth. To a careful, discriminating person, such remediable defects will create disgust of a most uncomplimentary nature. Besides, decayed teeth are frequently the cause of one of the most repulsive characteristics a person may possess; one that may be a great hindrance, even to commercial success, and always a nuisance to those who must come in close contact with such an unfortunate, who, in many instances, is not at all conscious of the heavy handicap he is carrying—an offensive breath. One should strive to ascertain the true condition of his exhalations and, if far from normal, he should seek, by all possible means, to correct the trouble, which must arise from either: carious teeth, as before stated; an unhealthy condition of the mucous membrane lining the mouth, nose or throat; a disordered stomach; lack of care, or uncleanliness, Unfortunately, we become used or insensible to odors that are a part of us and we must not, therefore, be too sure regarding our bodies. There are many conditions, especially diseased conditions, which may make us very unpleasant associates, consequently, effort should be constantly made to discover such troubles and, when found, they should be treated medically, surgically or dentally, as the special defect may require.

PERSONAL CLEANLINESS.

Personal cleanliness includes, besides the general cleanliness of the body, proper attention to the hair and beard and, especially, care of the hands and nails; regular, daily and persistent attention to the latter is suggested. One should, early in life, learn to be his own barber, so far as his beard is concerned, and certainly his own accomplished manicurist.

Consideration of the delicate—rather, the indelicate—subject of personal uncleanliness will, no doubt, be thought out of place, by some persons, in a course of study bearing the title this one bears but, when it is remembered that conditions, actually existing conditions, need to be treated and that it is intended to remove, as far as possible, all hinderances to commercial success, criticism upon this point, at least, should be withdrawn. Indeed, our best efforts should be directed towards rescuing the one stray sheep, while congratulating those more highly favored. It has been oftentimes and generally reported that the employment or continuance in employment of many technically qualified assistants has been impossible because of their very apparent uncleanly condition, which, of course, would render them objectionable to discriminating customers. It is also well-known that the outrageous want of personal cleanliness and the disgusting habits of some able pharmacists, who have been in business on their own account, have not only been the subject of much derision, but the real cause of financial failure. It is positively dangerous, then, for a young person seeking a creditable position in pharmaceutical or business life, not to have proper standards for his body and its keeping, or not to live up to these standards. Home training, it is admitted, should have provided for all this, but its failure should not be allowed to make commercial disaster certain. Let each individual make of himself, so far as possible, something of a model for those with whom he is to be associated, then, surely, he will not fail. Besides, next to a physician, surgeon or nurse, who should be more cleanly in person and habits than a pharmacist, and who, as a salesman or man of business, seeking to make favorable impression, should be more attractive? The standard for personal cleanliness should be fixed at the highest possible point and should be intelligently and conscientiously met.

DRESS.

Nothing can add so much to the business man's attractiveness as proper and careful attire, and nothing will so greatly detract from natural personal advantages as will careless and improper dressing. It was Disraeli, the great Lord Beaconsfield, who won distinguished and substantial success against the most trying obstacles, who said a man's success in life is largely dependent upon his tailor. Dress is a subject that requires observation, thought and study. To the possessor of ample means, it is a comparatively easy matter, but when one has correct and sufficiently high ideals in this direction, with but scanty means, it offers a serious perplexity at times. It is, however, a business difficulty which must be overcome in a business way. A pharmacist had better slight his store and stock than his wardrobe.

The selection of a tailor is a matter of nearly as much importance and about as difficult as the selection of a physician, a dentist or even a pharmacist! One is no more able to properly treat personal ailments than he is able to properly fit himself with a suit of clothes or select the proper quality of cloth. It is often because of their presumed abilities, in this regard, that so many persons are oddly and badly dressed. Warning is made against the average clothing salesman whose one object seems to be to sell, and who frequently makes veritable monkeys out of his too confiding customers.

Warning is as earnestly made against your own personal oddities, generally, and, especially, in this matter of dress, which often lead to the wearing of conspicuous and inappropriate apparel; including, of course, head and foot wear.

It is a perfectly safe rule that keeps one inside and along the middle lines of fashion, but away from extremes and fads. Seasonable dressing is important, not only for reasons of personal comfort, but for effect, also, as is respectful dressing. Respect and deference are always due customers, especially ladies; shirt-sleeves are never and nowhere respectful. Dress should be consistent with one's age and station. A professional man should invariably maintain the dignity of his profession in dress, as in every other respect.

If personal cleanliness is important, so is cleanliness in dress; indeed, it is paramount; to it, style and quality are secondary. Fine, fresh linen is the stamp of the gentleman, and the reverse is a heavy handicap to anyone who aspires to hold the position of a gentleman and win favor with the more refined. The pharmacist must be carefully dressed; it argues well for his prescription case and for his soda water counter. Surely it is most unfortunate ignorance or the direct necessity that leads one to use celluloid collars and cuffs. Yet, as vulgar and discreditable as these are, if clean, they are far better than is soiled linen.

Caution might be added here, against the possible offensive condition of the pharmacist's clothing, through the absorption of such odors as are produced by iodoform, asafætida and the valerates; odors to which the operator becomes very nearly insensible, but which are particularly disagreeable to many laymen, especially to ladies. This condition prevails with smokers, particularly those using cigarettes; they have no idea how disagreeable their very presence may be, more certainly to those in ill health. The practice many pharmacists have, of using large quantities of perfume extracts, largely because they are at hand and are repeatedly handled, renders such persons very offensive to those of refined sensibilities. All of these very common-place matters need our closest attention and apply to the case of salesrooms and laboratories with as much force as they do to person and clothing.

To these chapters, I have added a chapter on the mind and its training, setting forth the necessity of orderly training of the mind for business purposes; a chapter on the application of general education to business purposes, making effort to show just where such general attainments may be made profitable; another on correct and pleasing speech, including, as sub-subjects, "The Voice," "Pronunciation," "The Selection and Valuation of Words," "Common Grammatical Errors," and "Improper Construction of Sentences." Also in this first part of the treatise, which is devoted to the personality of the commercialist, I have given considerable space to character, especially business character, and to personal address and manners.

In the second part of the proposed treatise, I have discussed, with great pains, business writing as being of paramount importance to the business man of to-day, referring more particularly to correspondence, including circular writing, and to the writing of advertisements. This chapter treats such subjects as: writing material; stationery; penmanship; typewriting.

Under "Contracts," a most important division, is discussed the rental and purchase of real property, agreements with public utility corporations, insurance policies of all kinds, yet following this consideration of contracts, serious warning is given against depending too far upon one's own knowledge; the employment of a competent attorney for complicated situations is strongly urged. Other subjects are: "Credits," "Credit Men," "Commercial Agencies," "Banks," and "Banking." Especially is the usefulness of the bank in its various phases fully set forth, which is closely connected with loans and the securing of capital. The control of capital sufficient to meet the requirements of the undertaking is seriously dealt with and the warning is plainly given against entering business without ample provisions of this sort.

Many of the daily details and many commercial practices are given practical demonstration in the division devoted to bookkeeping and, if, when I reach the opportunity, I have not already too greatly extended this address, I will illustrate the possibility of stating the theory and giving the practice of a commercial transaction at the same time.

Bookkeeping, which I prefer to style "Business Record Keeping," is comprehensive enough to be considered alone, at such an occasion as this. It should be taught in accord with the more modern and really scientific methods. It is no longer a system of forms and there is now an aversion with those who know book-

keeping to such terms as "single entry" and "double entry." Instead of these, should be used "incomplete" and "complete." There are fundamental principles or rules controlling the keeping of business records that are as fixed and as certain as their names imply: "Truth," Fairness," "Justice," to men and things, are the directing and controlling influences. An accountant who cannot test the propriety of a charge by the "Golden Rule" fails to use his surest and best safeguard. The teaching by some that there is a difference between a personal and an inanimate account is pernicious.

So-called "bookkeeping" may be made very practical for the student of pharmacy, by using a month's business for an average retail store and by selecting December as the month and by giving the desire to close the fiscal year concurrent with the calendar year as an excuse for taking inventories and closing the books, the principles and practices involved in an entire year may be covered in this one month.

I have such a record. It includes entries sufficient to illustrate the principles involved in almost any transaction that may come up for treatment in the business life of the average pharmacist.

I will read three days of this record:

December 1. Began business with a capital of five thousand dollars in certified check, gift from Father, which was deposited in bank. Drew twenty-five dollars from bank to be used for small expenses, as needed.

Received invoice for shelving counters and wall cases amounting to \$1200.00 from F. G. Bracket. Received invoice from H. O. Sale & Co., amounting to \$905.10 for drugs, medicines, patent medicines. Paid 25 cents for bucket, 15 cents for scrub brush, 10 cents for soap, 25 cents for broom. Paid woman for washing windows and cleaning store, \$1.00. Bought hatchet, 50 cents; nail puller, \$1.25. Paid B. E. Good \$6.00, insurance on fixtures. Paid T. E. Householder \$50.00 for rent, in advance.

December 10. Received invoices from: Keen and Heighs, \$19.20; H. O. Sale & Co., \$34.92; a second invoice from H. O. Sale & Co. for \$16.05; Cecil Cigar Co., \$14.20. Paid for lemons, 25 cents, for soda fountain, and took out of stock for same, one bottle bromo seltzer, 34 cents; 4 ounces aromatic spirit of ammonia, 15 cents; 1 pint of alcohol for cigar counter, 38 cents. Cash sales: Merchandise, \$16.40; soda water, \$5.90; cigars, \$3.50. Paid \$2.50 for Pharmacopæia and \$7.50 for Dispensatory.

December 15. Paid \$25.00 for suit of clothes, by check. Received invoices from G. Lass Ware & Co. for bottles and corks, \$9.50; H. O. Sale & Co., \$14.60; freight on G. Lass Ware & Co.'s goods, 34 cents. Invoice from Charles Wright & Co., \$6.35. Paid annual dues: State Association, \$2.00; American Pharmaceutical Association, \$5.00. Sold C. K. Harrison on account: Prescription 4697, 50 cents; 4698, 40 cents; 4699, 60 cents; atomizer, \$1.00; dropper, 10 cents; 1 pound absorbent cotton, 40 cents. Sold Dr. A. R. Blaud 1 ounce calomel, 25 cents; 1 ounce Dover's powder, 35 cents; 1 pound absorbent cotton, 30 cents. Sold H. O. Sale & Co., ½ dozen compound syrup of hypophosphites at \$8.00, less 10 percent; ½ dozen aromatic castor oil, at 75 cents, less 10 percent. Cash sales: Merchandise, \$34.90; soda water, \$3.35; cigars, \$1.50. Paid subscriptions to drug and soda water journals, \$5.50.

It would be tedious to write of the multitude of items that may be presented to the student of a most practical nature, in connection with these records. All the details of making deposits, keeping a bank account, drawing checks; the purchase of certified checks, the responsibilities regarding checks, may be so demonstrated and actual practice regarding them secured.

The segregation of charges to the proper accounts is interesting and important. The establishment of proper and profitably kept "Department Accounts" may be

fully set forth. Remarkable instances may be given of universal difficulties students have with some of the problems appearing in this record of thirty days, which is not only interestingly comprehensive, but is most profitably worked out by the embryo business man.

On the tenth and twentieth of the month, trial balances are required to be made and, following the thirty-first day, the following appears.

"Make up inventories; make trial balance; take off a balance sheet; balance cash account and balance or arrange the other accounts to make the business or fiscal year begin with the calendar year."

In conclusion, let me commend to you who are already in business and have not become sufficiently familiar with accounting to be fascinated by it, the further study and investigation of the subject, that you may not only profit by its helpfulness, but that you may have this additional interest in your work and the added happiness it gives in your lives.

INDUSTRIAL RESEARCH IN UNIVERSITIES.

BY H. K. BENSON.*

Popular interest has lent itself to the problem of a more intensive application of the discoveries of science to the industrial life of the nation. As time goes on and we catch glimpses of the coming reorganization of industry in Europe, we see more clearly than ever the necessity of making this nation more largely self-contained. This burden rests largely upon our productive capacity—the ability to utilize our own stores—and resources. Everywhere this challenge meets with enthusiastic response and our universities have caught the spirit of the new awakening.

The exact manner of participation will, no doubt, vary greatly with the type and character of the institution. The aloofness of the colleges and universities has not been due to unwillingness to participate in industrial upbuilding. It is in part the inheritance of classical ideals and of cultural requirements that has retarded the advent of industrial problems as subjects of study and research in the curricula of our colleges. But now, apparently, a general awakening has come alike to industry and to the educational institutions, with the result that both may be enriched by rational coöperation.

With this thought in mind, the University of Washington has organized a bureau of industrial research to which the industries of the state may refer their problems and by mutual assistance seek their solution. By this plan the University seeks to enlarge not only its usefulness in service, but also its efficiency in the training of its students, and through a greater coördination of its faculty. The general plan is as follows: A given industry submits its problem to the bureau and sets aside a sum of money to establish an industrial fellowship. Thereupon, a committee of the faculty, chosen with reference to fitness or expert knowledge of details required in the solution of the problem, prepares a working plan or outline of the investigation, which is next submitted to a similar committee of the donating corporation and jointly modified and accepted. A graduate student is then assigned to the project and is paid a stipend of not less than \$500 per annum. As additional compensation he is allowed to offer his research for thesis require-

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