

BIBLIOGRAPHY OF PHARMACEUTICAL RESEARCH

Compiled by A. G. DuMez, Reporter on the Progress of Pharmacy.

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GALEN DISPLAY IN WELCOME HISTORICAL MEDICAL MUSEUM.

A small exhibition of books and pictures associated with Galen has been arranged at the Wellcome Historical Medical Museum, London, in connection with the eighteen hundredth anniversary of his birth, which is variously given as 130 A. D. or 131 A. D. Most interesting, perhaps, among the early editions of the books are two of the "Methodus Medendi," printed, respectively, in Venice in 1500 and in Paris in 1519, the editor of the latter being Linacre. Galen's "Methodus Medendi vel de Morbis Curandis" is of perennial attraction for pharmacists by reason of its containing the original formula for cold cream. In these days of skilled excavation on an unprecedented scale it is not impossible that a sample of ceratum Galeni, prepared by the "author," may come to light: if this should happen, the Wellcome Museum ought to receive the first offer. Among the paintings and drawings is a curious color print, dated 1774, showing Galen meditating over a human skeleton which is lying on the ground—an incident said to have led to his conversion to Christianity.—From *Chemist & Druggist*, February 15, 1930.

There are no substantiated records (unquestioned) that Galen kept a pharmacy; his "Apotheca" in the Via d'Acra in Rome is said to have been a house where his writings were kept and where physicians came to consult him. It is generally conceded that he traveled far and near to learn the sources of drugs and added largely to the knowledge of vegetable materia medica.

COMMERCIAL ASPECTS OF PROFESSIONAL PHARMACY.*

The prescription department in many a drug store is rich in neighborhood romance. In recent conversation with a retailer of whom I asked permission to make a photograph of his prescription department, I was told a little story that proves my point. Said he, "I'm ashamed of my stock. I would hesitate to permit a photograph to be made of this department if it were to be published over my name. Note that gallon bottle over there; it is almost full. It reminds me of an old lady named Stillman who lived over on Park Avenue. She had some sort of stomach trouble; it bothered her for years. She was a good customer. When Dr. Rockman wrote a prescription for that item, I placed it in stock. The demand was steady until Mrs. Stillman died and ever since that I have had to face \$19.00 worth of the product every day. Her memory is fresh to me and probably will be for years to come.

"That gallon bottle in the corner is reminiscent of Joe Peters. You don't remember Joe but he was an old-timer around here. Joe had a bad cough and when 'Doc' Newton finally saw Joe, he gave him a prescription. I bought in small quantities at first and then the salesman offered me a better price on a gallon. It was shortly after that that 'Doc' changed prescriptions.

"Henry Todd has been dead for three years. He suffered from asthma and heart trouble. He went to a big clinic somewhere. He also saw a specialist in Buffalo. He brought home prescriptions that seemed to help him. I was a little skeptical about the steadiness of demand and ordered in small quantities. Twice when Henry's asthma was bad I was out of stock and he was provoked. I then put in quite a supply and Henry up and died. I don't suppose I ever will sell the remainder of that stuff. There are a dozen or more prescription products around here that do not move. Each has a similar story that is hooked up with the people in this neighborhood."

There is no department in a pharmacy that is more of a challenge to the ingenuity of the proprietor than the prescription department. That is reason enough for any pharmacist to make every endeavor to make it pay. After all, it is the very heart of his business, without which his store would soon deteriorate into a soda parlor or a restaurant.

Justifying the existence of a prescription department in a small town is even more difficult than it is in a large center of trade. That this problem is a common one is evidenced in the fact that over half the population of this country lives in towns of 2500 or less. The paved road, the automobile and the growth of hospital facilities in larger centers tend to draw drug store patrons to the city for medical advice, hospital service and their prescriptions.

The pharmacy laws in many states are quite strictly enforced. The small-town pharmacist who obeys the law is required to employ a registered pharmacist. Unless he makes a slave of himself, eats his meals in the store and never takes a vacation or a day off, he must have registered assistance. It is the law. Relief clerks are not available in small towns.

I saw a profit and loss statement of a small-town Indiana pharmacist recently.

* An Address by H. S. Noel before the Section on Practical Pharmacy and Dispensing, Rapid City, So. Dak.

I had never met the proprietor. I did not know the name of his town or any particulars concerning his business other than the fact that his was the only store in town. In reviewing his figures, I was struck with the thought that he was doing a nice business, making a satisfactory profit. His rent was but two per cent of sales. Ordinarily, rent amounts to five per cent even in small towns. On looking over the salary figures and comparing the total for salaries with the proprietor's salary, I noted that the difference was very slight indeed. The statement told me plainly that he did not employ a registered pharmacist. My deduction proved to be true. This store will not average better than five prescriptions per day. Most of these require very little compounding skill. The law says, however, that a registered pharmacist must at all times be present. This man is violating the pharmacy law in his state. He is taking a chance. Who shall say, however, that he is a menace to public safety? I wish very much that I had a solution to offer for this problem.

In larger centers and in cities, an entirely different type of problem presents itself. The possibilities for correcting the difficulties of which I have spoken are more numerous. Here at least the pharmacist has potentialities. He must, however, be alert to ways and means and be fully alive to the fact that the old order of things that permitted him to wait for patrons is no more. The price of success is efficiency, made necessary by an order of things over which he has little control. It is not enough to wait for business. He must create it.

I have talked with several pharmacists who wished they could give up the prescription department. One man told me recently that his son was a disappointment to him. The father had ambitions to educate the boy in pharmacy but the young man was not interested. He was a good son, however, worked hard in the store, was a good business helper but not professionally inclined. The father concluded that because the son was more interested in merchandising than in pharmacy it might be well to drop the professional end and encourage the boy to devote his time to merchandising. Later, I visited this man and went over his store and his stock, and I think, convinced him that it would be a great mistake to abandon his prescription department.

Recently, I read in a magazine the story of a California fruit grower who faced very trying conditions in marketing a fine crop. He was equal to the circumstances, however, and finally engaged a ship and with its perishable cargo sailed away to the Orient where, not without considerable difficulty, he managed to dispose of his fruit. His resourcefulness saved the day for him. It requires resourcefulness to make a success of any business under conditions prevailing to-day. We hear of the difficulties of making money in the prescription department but how many pharmacists are actually doing anything about it or showing any resourcefulness in meeting the situation?

Profits for any department of the drug store are always in direct relation to sales volume, gross margin and overhead expense. When investment is large and volume small, expense is high. And that is the condition we find in many pharmacies. The chances are that the cost of filling a prescription in stores doing relatively a small volume is around 50 or 60 cents out of every dollar received. It is very necessary to know what it actually costs to fill a prescription, yet how few pharmacists know definitely. There is no more room for guess work in pharmacy

than there is in any other business. Facts and figures have replaced theory and tradition. Every pharmacy should be governed by a store policy, a definite set of well-established rules by which the business is managed, prices are established to physicians, nurses, etc. Even in a "two-man" store there should be a clear understanding of individual responsibilities. Prescription promotion plans should be formulated and carried out. An appropriation, however small, should be set aside to give publicity to this department. It should have its share of window attention.

When the Powers Drug Company, of Syracuse, N. Y., opened for business in 1854, goods were purchased just before the Erie Canal opened in the spring and just before it closed in the fall. No one thought in terms of inventory or overhead expense. It took eight days to fill some prescriptions. Drugs were ground by hand in a mortar of iron or stone. Pills were hand-made and plasters were turned out with a spreading iron. There was no national advertising; it was before the time of automobiles and the railroad had not as yet proved its value. It was nearly a quarter century prior to telephones. There have been vast changes with which we are all acquainted.

Most everyone will concede that when it comes to prescription business the individual druggist has a much better opportunity to create volume than has the chain store. Yet there are no small number of chain stores doing a highly satisfactory business and making a very nice profit under conditions that would mean failure to the average individual pharmacist. I know of one chain that reports a 60 per cent gross margin and a turnover of four in its prescription department. Another reports 7 per cent of its volume in prescriptions and 63 per cent gross margin with a turnover of 3.2 times.

Such a showing would have been absolutely impossible in an independent store recently purchased by a chain. This store had daily sales of \$40.00 and in the prescription department were found twenty-six cases of pharmaceutical products in containers of one to five gallons, fifteen ounces of Spanish Saffron and two one-pound containers of oil of lemon and of oil of bergamont. This pharmacist would spend fifteen minutes trying to secure a better price on a gallon of Elixir Iron Quinine and Strychnine. He took pride in his skill as a buyer while the carrying charges on slow and dead stock were eating up his profits.

It is not unusual to find an inventory ranging from \$2500 to \$3000 in individually-owned drug stores. There is nothing wrong with such a stock if the volume warrants it. In most instances it does not. One of two things should be done. Ways and means should be found to increase volume or steps should be taken to decrease the investment and to keep it balanced.

A \$10,000 prescription business is not large. Theoretically it represents about thirty prescriptions a day at \$1.00 each, and a turnover of about three times. The inventory for such a volume should not exceed \$1500 and yet it does in most every pharmacy where the volume is comparable to these figures.

Many pharmacists either do not know costs or else appear to be afraid to charge what their wares and time are worth. Over-pricing loses trade; under-pricing loses profit. There should be no guess work about it. There is ample defense for a just price.

A beautiful booklet recently reached my desk. It was nicely illustrated and was one of the best bits of advertising for pharmacy that I had ever seen. The man who prepared it had done a fine piece of work. I wrote asking for further particulars concerning what appeared to me to be skilful work, representative of a most unusual store. I was much disappointed to learn that the store was on the verge of failure due to poor business planning and practice.

The commodities in a prescription department do not respond to the merchandising effort that promotes the success of the front store. The figures that constitute overhead expense are altogether different in the prescription department. That part of the business should be separated from the other departments as far as inventory, markup and profits are concerned. There should be a system of stockkeeping. There are several such, easily installed, quite as easily maintained. There are always those who say a thing cannot be done, while others are doing it.

I hear pharmacists say that their stock is representative of physicians' specifications. Examination of prescription files does not fully bear this out, however.

Purchasing for a prescription department requires care but not very much skill. Price is a secondary matter. Quality is very important. The best counts for much and is a silent spokesman.

A good way to keep investment down is to buy consistently from a good wholesaler; he makes possible economies far more practical than the concessions offered by one whose sole interest is in creating volume of sales. The difference between a \$2000 investment and a \$2500 investment may mean considerable in the ratio of profit to investment.

It is not unusual to find a pharmacist with a half-gallon of tincture of iodine purchasing another gallon because of a special price. It is common to find three and four elixirs of the same formula in a pharmacy, each one bearing a different producer's label. Controlled buying avoids duplication, lessens investment and increases profit percentage. In no department of the drug business is it more necessary to buy as you need.

The tendency of the times seems to be for physicians to be a little skeptical of the professional side of pharmacy. Certain it is that preventive medicine, specific measures and specialties have replaced many pharmaceutical mixtures of fluid-extracts, tinctures, etc. If I were in business to-day, I should look with disfavor upon the products of any house that did not offer me the fullest measure of coöperation in helping me to build a prescription department. I would not encourage any manufacturer who sold his preparations through other than drug channels. There is good reason to believe that it is better to have your pharmacy known as head-quarters for a certain line of high grade merchandise than it is to have the reputation of stocking everything under the sun. It's much more profitable to follow the former course.

During the next ten years it is not unreasonable to believe that with the many changes going on, pharmacy will show a reaction in common with other lines. Pharmacy will undoubtedly witness a separation of the truly professional activities from the more commercial aspects of the calling. Pharmacy, however, will always be as much a business as it is a profession and it will always respond in proper measure to those who are fitted to cope with the times and are broadminded enough not to be governed by any illusions concerning highbrow theories of pro-

fessionalism. Let us not be unmindful of the fact that pharmacy is unique among the professions, that it is a curious mixture at best in which there can be no hope of material success without business ability. Let us by all means cling to ideals and high standards. On the other hand, no one should for a moment forget that business has always been a forerunner of civilization and the practical application of all scientific discoveries has been due to business methods carefully planned.

GARCIA DA ORTA AND THE FIRST DESCRIPTIONS OF ASIATIC DRUGS.*

BY LIÉUT. COMMANDER LOUIS H. RODDIS, MEDICAL CORPS, U. S. NAVY.

The end of the fifteenth century saw two great events, the discovery of the Americas by Columbus and the opening of the sea route to India by Vasco da Gama. As a consequence of these voyages the tropics with all their new and remarkable products were first made known to Europeans.

The original scientific description of many new plants of the western hemisphere was by Oviedo (5), a physician as well as a botanist. In his *Historia general y natural de las Indias*, he describes maize, the pineapple, the prickly-pear, the rubber tree, manioc and the manner in which its poisonous starchy root is rendered edible by washing, the guava from which a delicious jelly is made, the avocado or alligator pear, believed by the natives to have aphrodisiac properties, the calabash or giant gourds, and the sweet potato. The plates showing figures of many of these plants were the first pictures of them published.

What was done for the plants of the New World was done for Asiatic plants by Garcia da Orta, a Portuguese physician and botanist of the sixteenth century (4).

Da Orta was born about 1490 at Elvas, a frontier town of southeastern Portugal celebrated for its antiquity, the purity of its water, and the excellence of its plums, three good things on which to rest the fame of a town. He studied medicine at the Spanish universities of Alcala de Henares and Salamanca, and after a short period of practice in small towns of his native province went to the University of Coimbra as a professor. In 1534 he accompanied a new viceroy to Goa, the capital of Portuguese India (1).

Da Orta spent the rest of his life in the Orient, serving as viceregal physician or in other official capacities, traveling, practicing medicine and studying the natural history of India and the character of its civilization. His travels cannot now be definitely traced but it appears that he visited nearly all the native states on the west coast of India, and the island of Ceylon probably more than once. He held the island where Bombay now stands under a long term lease and had there his botanic or "physic garden." From it he sent many valuable seeds and plants to Portugal, among others tradition says the first plants of the China orange to reach Europe. As this is the parent stock of our citrus fruit, the value of this one importation is considerable (1, 2, 3).

Da Orta was a friend and physician to many of the Indian princes of the Malabar coast who eagerly sought his professional services and who rewarded him with

* Section on Historical Pharmacy, A. PH. A., Rapid City meeting, 1929.