

lished later be kept manned by some sort of licentiate, we are forced to retreat to conditions that will hold back the educational progress of American Pharmacy for an unpredictable number of years.

The fate of all prerequisite legislation will rest, in the final analysis, in the hands of state associations, but bodies such as the one here assembled and the national associations concerned with the matter must bear the burden of leadership and of education. The program of mass endeavor must be coördinated properly or else the fight is lost.

EARLY RELATION OF PHARMACY AND MEDICINE IN THE UNITED STATES.*

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In the British colonies, which later became the United States, little distinction obtained between the professions of Pharmacy and Medicine until the time of the Revolution. Diagnosing disease and treating the sick as well as compounding and vending drugs were carried out by the same individual, usually called "doctor," although in nine cases out of ten he did not possess a medical degree.

There were several reasons for this state of affairs. The hard life in the colonies did not attract many qualified practitioners of either art to settle here. Many of those who emigrated in the seventeenth century soon returned to the easier life of the mother country. Because of the dearth of qualified men "anyone who knew calomel from tartar emetic, jalap from ipecac, and had the assurance to use them, who could make and apply ointments and plasters, dress wounds or splint a broken limb, was a welcome settler and received the title of doctor without asking." Many men of prominence, including governors, preachers, school teachers, commodity dealers and editors, dabbled as physician-apothecaries. As late as 1776 only about 400 of an estimated total of 3500 practitioners of medicine in the American Colonies held degrees.

Most of the early settlers came from England where the prerogatives of physician and apothecary were not as well defined as on the Continent. Rolleston (1) has noted that the Paris Society of Apothecaries was granted a separate coat of arms in 1629 and their quarrel with the physicians died down, at least temporarily. In 1688 in Belgium the dispute between the pharmacists and medical practitioners culminated in a law forbidding physicians to dispense their own prescriptions. In England, however, the long controversy between the College of Physicians and the Society of Apothecaries² continued well into the eighteenth century and the activities of the apothecaries as practitioners increased during this period. Their standing with the public had been enhanced by their steadfast services during the plague year of 1665 when many physicians deserted London and followed wealthy patients to the country.

Records of the earliest years reveal that few physicians came to the colonies to establish practices on their own initiative. Surgeons and physicians did contract

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² The Apothecaries were separately incorporated by James I in 1617.

their services to the trading and colonizing companies or proprietors for varying periods and a few ships' surgeons remained in the colonies. These men perforce prepared their own medicines; apothecaries were even scarcer than physicians and surgeons. Regardless of the label he bore—whether "physitian," "chirurgion" or "poticary"—the practitioner served in all categories.

With the advent of new settlers, the birth of new generations and the evolution of a more stable form of life in the colonies, populous cities arose and the earlier primitive medical practices slowly passed. Increasing numbers of physicians, surgeons and apothecaries established themselves in the population centers and undertook the instruction of apprentices in the art and mystery of their calling. After a few years' apprenticeship to a physician or apothecary the young man might set up in business for himself, vending drugs and compounding medicines, or he might conduct an apothecary shop for some physician. Others continued their studies with a physician or surgeon and ultimately became practitioners themselves. The apprentice method of practical training helped to blunt any sharp distinction between Medicine, Surgery and Pharmacy and, since relatively few apprentices finished their education abroad, the European attitude of exclusive privilege and definite boundaries for each profession did not gain general acceptance here until late in the eighteenth century. Even the line around quackery was not clearly drawn. Sigerist (2) suggests that, "we hear little of quacks, probably because," in small communities, "every one knew every one else, and the good or bad results of treatment could not long be hidden."

The practitioner of the combined professions was restricted by few legal enactments. "Immoderate and excessive rates and prices exacted by practitioners in physick and chirurgery" for their services and "druggs and medicines" led Virginia to pass one of the earliest restrictive laws in 1639 and ten years later Massachusetts prohibited all but recognized and tried practices on the part of "chirurgions, midwives, physitians or others" (3). A code of laws for New York, New Jersey, Martha's Vinyard and Nantucket (1665) contains a section almost identical with the Massachusetts regulation. Virginia enacted a fee bill in 1736 which clearly recognized the difference between surgeons and apothecaries who had only been through apprenticeships and "those persons who have studied phisic in any university and taken a degree therein" (4). In 1748 Virginia also forbade "any negroe, or other slave" to "prepare, exhibit or administer any medicine whatsoever" and an enactment of 1751 in South Carolina made it unlawful "for any physician, apothecary or druggist to employ any slave in the shops or places where they keep their medicines or drugs" (5).¹

The dual status prevailing at the middle of the eighteenth century, even in cities like Philadelphia and Charlestown, is well exemplified in the following: "Rules . . . of the Pennsylvania Hospital . . . practitioners . . . shall enter in the said book the recipes or prescriptions they *make* for each of them (patients);" the Faculty of Physic at Charlestown resolved (1755) that "neither can they think that the payment of an apothecary's bill a sufficient reward to him who acts in the three different offices of phisic, surgery and pharmacy."

¹ Common usage of the time usually restricted the designation *apothecary* to one who compounded and dispensed medicines at retail, whereas a *druggist* was an importer who sold at wholesale.

Although the colonial physician was necessarily an apothecary, it was still exceptional to find him maintaining a shop for filling other practitioners' prescriptions. One such establishment, founded about 1753 in Reading, Pa., was that of Adam Simon Kuhn. A newspaper advertisement of 1759 relates that, "he has reopened his Apothecary in Reading, which he was compelled to close owing to the fact that he had been unable to engage an efficient representative, and . . . he is in a position to fill in the best and most efficient way, all and every receipts and other prescriptions of the most learned Doctors, through Daniel Adam Kurrer, the well-known druggist who has been in partnership with him in Reading. The Apothecaries in Lancaster and Reading will stay in constant correspondence with each other and will be managed with utmost care by persons who are well-versed in the science of Pharmacy" (6).

Benjamin Franklin, as secretary to the Board of Managers of the Pennsylvania Hospital reported that, "The practitioners charitably supplied the medicines gratis till December 1752, when the managers, having procured an assortment of drugs from London, opened an apothecary's shop in the hospital; and it being found necessary, appointed an apothecary to attend and make up the medicines daily, according to the prescriptions, with an allowance of fifteen pounds per annum for his care and trouble" (7). The first apothecary, Jonathan Roberts, resigned in 1755 to accept more remunerative employment and was succeeded by John Morgan, then an apprentice of Dr. John Redman, who served for a little over one year. A little later (1766) the Pennsylvania Hospital agreed to instruct Thomas Boulter in the "art, trade and mystery of an apothecary." Morton (8) reproduces the articles of this apprenticeship.

The trend toward separation of the practice of Pharmacy from that of Medicine, then, is clearly evidenced in America in the decades before the Revolution. Increased acceptance of the advantages and desirability of such a separation can largely be attributed to the greater number of Americans who completed their medical training abroad and returned to the colonies imbued with the prevailing European viewpoint. The Virginia Club of Edinburgh, composed of medical students from the colony of Virginia, bound every member "for the honor of his profession, not to degrade it by hereafter mingling the trade of an apothecary or surgeon with it." They even petitioned the Virginia House of Burgesses in 1761 to require proper licensing of all practitioners, who should hold a doctor's degree. Also, the emigration of numerous physicians, surgeons and apothecaries from various countries and principalities brought to our shores men trained according to the European systems in which Pharmacy was a separate profession. Dr. Lewis Mottet, a native of France, proposed in 1769 the establishment of a pharmaceutical institute for South Carolina, to correct the common irregular methods of practice (9).

These first indications of the cultivation of Pharmacy as a profession distinct from Medicine were markedly intensified by John Morgan. After completing his medical studies abroad, he returned in 1765 to found the Medical School of the College of Philadelphia and became the outstanding advocate of the separation of Pharmacy and Medicine. His remarks (10) on this subject have been widely quoted.

"The paying of a physician for attendance and the apothecary for his medicines apart, is certainly the most eligible mode of practice, both to patient and practitioner. The apothecary

then, who is not obliged to spend his time in visiting patients, can afford to make up medicines at a reasonable price; and it is as desirable, as just in itself, that patients should allow fees for attendance, whatever it may be thought to deserve. They ought to know what it is they really pay for medicines, and what for physical advice and attendance.

"We must regret that the very different employment of a Physician, Surgeon, and Apothecary should be promiscuously followed by any one man, however great his abilities. They certainly require very different talents.

"The business of Pharmacy is essentially different from either. Free from the cares of both, the Apothecary is to prepare and compound medicines as the Physician shall direct. Altogether engaged in this, by length of time he attains to that nicety of skill therein which he never could have arrived at, were his attention distracted by a great variety of other subjects."

Since physicians often derived the greatest part of their incomes from their medicines rather than from their services, Morgan was attacking the financial basis of American medical practice. Scant wonder his recommendations were not immediately accepted. In keeping with his resolve to get his living "without turning apothecary or practitioner of surgery," and because he believed that an apprentice could not be a good pharmacist, Morgan brought an English trained pharmacist, David Leighton, back to Philadelphia with him and sent his prescriptions to Leighton to be filled. The innovations introduced by John Morgan undoubtedly stemmed from his associations in Edinburgh (11) and the course he pursued sanctioned the independent existence of the profession of Pharmacy (12). A few physicians in Philadelphia, notably Dr. Abraham Chovet in 1770 and Dr. John Jones in 1780, followed Morgan's example and adopted the plan of writing prescriptions for their patients.

The practice of Pharmacy was gradually and achingly becoming detached from the practice of Medicine, but the separation had only started when the Revolutionary War opened. The recognition of the apothecary as an office distinct from the physician and surgeon was given added impetus by various enactments, of provincial congresses and of the Continental Congress, relating to the organization of the army. Provision for an apothecary-general and apothecary mates was made in the plan adopted in 1775 and was continued in the reorganizations of 1777 and 1780. Shops and laboratories were specially designated for the preparation of drugs and compounding of medicines to be distributed to the various hospitals and field units. The first American pharmacopœia (1778) was prepared particularly for use in the army hospitals. The travel, associations and varied experience gained in the medical department of the army undoubtedly widened the outlook of many practitioners and sent them back to civil life with a new realization of the apothecary's rôle in improved medical service.

In the latter part of the eighteenth century the customary combination of physician and pharmacist continued in most cases and contemporary newspaper notices, in which physicians and apothecaries advertised their wares, reveal a very keen, oft times bitter, trade competition. DeWarville in 1788, in his "New Travels in the United States of America," says: "The greater part of these physicians are at the same time apothecaries. They continue to unite the two sciences, out of respect to the people, who wish that the man who orders the medicine should likewise prepare it. There are, however, other apothecaries, of whom the physicians purchase their drugs." Public demand (?) for continuing this dual status was, however, probably a less powerful incentive than the profit to be derived from the

sale of drugs. In fact, partnerships were often formed between the physician and the apothecary with resultant division of labor, but without sacrifice of drug profits on the physician's part. This arrangement which was superior to the earlier custom has persisted in some cases to the present time.

After the Revolution, when knowledge of European advances became more widespread, medical practices improved; state medical societies were formed, dispensaries were established, and licensure laws were passed. These developments were a forward step in the evolution of Pharmacy as a separate profession. When dispensaries for supplying free medical care to the poor were opened in Philadelphia (1786), New York (1791), Charleston (1798) and other cities, an apothecary was usually appointed in order to provide adequate pharmaceutical service. Following the earlier regulations of New York (1760) and New Jersey (1772), state legislatures of the new Republic generally placed the licensing of medical practitioners in the hands of medical societies or boards of examiners¹ (13). In some instances the pharmacist was included in these regulatory acts. For a few years (1786-1790) Virginia levied a license tax on every practising physician, surgeon and apothecary. However, the first pharmacist to stand an examination before a licensing board was Richard Johnson, who on December 14, 1818 was quizzed by four members of the Medical Society of South Carolina (14).

Although medical colleges gave instruction in pharmaceutical subjects as a part of the medical course at an earlier date, it was not until 1821 that the first college of pharmacy was founded by the apothecaries and druggists of Philadelphia and not until 1826 that the first class was graduated. The University of Pennsylvania had considered (1819) establishing a curriculum for pharmacy students and the Faculty of Medicine in 1821 nominated sixteen men for honorary degrees (Master of Pharmacy). This "unwarrantable assumption of power on the part of the University and injudicious innovation in academical practice" stirred the local druggists and apothecaries to establish their own college. By providing opportunity for formal education, eradicating injurious practices, formulating a code of professional conduct and assuming responsibility for forwarding the interests of Pharmacy this college did much to advance the character of the profession and establish it on a firm basis as a separate entity (15). The organization of an association by the apothecaries of Boston in 1823 and the establishment of colleges of pharmacy in New York (1829), Maryland (1841), Cincinnati (1849) and Boston (1850) extended the autonomy of Pharmacy.

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CIRCULARS ISSUED BY THE BUREAU OF NARCOTICS.

During the twelve-month period ending June 30, 1939, the number of thefts of narcotic drugs from the premises of persons registered under the federal narcotic laws reached a total of 733 as compared with a total of 657 during the previous year.

This sharp increase in the number of such thefts reported leads this office to again issue a warning that increased caution should be exercised in the handling of narcotics, and to reiterate its insistence that stocks of such drugs be provided with secure places of storage.

That the addict and peddler turn more and more to the robbing of legitimate stocks as the supply of illicit drugs becomes more restricted is a fact of experience. Opium, morphine, dilaudide, cocaine and even codeine and dionin are highly attractive to such persons. Such drugs should always be stored in safes or strongly constructed vaults, and where the stocks are of considerable size, some type of electrical protection for the premises is also recommended.

Article 193 of Regulations No. 5 requires that narcotic drugs and preparations shall at all times be properly safeguarded and kept secure. In every case, whatever measures are required by the circumstances and surroundings should be taken. Manufacturers and wholesale dealers, who constitute the source of supply for other registrants and who are generally known to carry substantial stocks of narcotics, should be especially alert to see that their stocks are fully protected.

It has come to the attention of the Bureau that due to the European situation there is some uneasiness in certain quarters of the drug trade regarding a possible shortage of narcotic items, and that this is prompting some registrants to make purchases beyond their normal requirements.

Due to the importing and storing of opium reserves in customs warehouses, a policy initiated several years ago, there are now adequate supplies of raw opium and finished opium derivatives within this country to supply all normal needs for approximately three years.

There is accordingly no occasion for fearing a shortage of such drugs, and in order that the machinery of orderly distribution may not be disrupted, this office will appreciate the coöperation of the trade in limiting all transactions in such items, both purchases and sales, to normal requirements for immediate needs.

The accumulation of excess stocks on the shelves of retailers and practitioners results in theft hazards. Manufacturers and wholesale dealers are therefore urged, not only to limit their own purchases to normal manufacturing and distribution needs, but also to refrain from sales drives, and the offering of price discounts for quantity orders or any other concession which might operate as an inducement to registrants to purchase beyond their actual requirements.

Several years ago there was a temporary dislocation of codeine stocks due to a false fear of a general shortage, wholly unwarranted by the actual condition of stocks. The Bureau desires to avoid a recurrence of this situation without the necessity of requiring monthly stock inventories and the institution of a quota system, and desires your active coöperation to this end.

H. J. ANSLINGER, *Commissioner.*