

Murray (D.)

FIRST
COMMENCEMENT EXERCISES
OF THE
ALBANY COLLEGE OF PHARMACY,
DEPARTMENT OF PHARMACY OF UNION UNIVERSITY,
WITH THE
ADDRESS
DELIVERED TO THE GRADUATING CLASS
BY PROF. DAVID MURRAY, PH. D., LL. D.,
SECRETARY OF THE REGENTS OF THE UNIVERSITY OF THE STATE OF NEW YORK.



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ALBERT GARDNER OF BOSTON
DEPARTMENT OF AGRICULTURE AND RURAL INDUSTRIES

ADDRESSES

IN THE CITY OF BOSTON

COMMENCEMENT EXERCISES.

The first commencement exercises of the Albany College of Pharmacy were held on the evening of February 28th, 1882, in the amphitheatre of the Albany Medical College. The students of the college occupied the lower rows of seats, the others being filled by the general public. Shortly after eight o'clock the trustees, faculty and guests entered and took their places upon the floor of the hall. There were present Rev. Eliphalet Nott Potter, D. D., LL. D., President of the University, Prof. David Murray, LL. D., Joseph W. Russell, Esq., President of the Board of Trustees, Archibald McClure, Esq., Charles Newman, Esq., A. B. Husted, M. D., L. H. Tucker, Esq., E. P. Waterbury, Esq., Louis Sautter, Esq., Trustees; Professors Mosher, Tucker and Michaelis; Rev. Irving Magee, D.D., Henry March, M. D., and others.

The exercises were opened with prayer by Rev. Dr. Magee, after which President Potter delivered the charge to the following members of the graduating class, and presented them with diplomas conferring the degree of Graduate in Pharmacy (Ph : G.): Albert R. Griffith, Oil City, Pa.; Gustav Kreutzer, New York city; John S. Phillips, Fonda, N. Y. The address to the graduates was then delivered by Dr. Murray, and at its conclusion President Potter announced that two prizes were to be awarded; one of twenty-five dollars, the gift of President Russell, to the senior student who had presented the best thesis, and another, of a like sum, to the senior student who had passed the best final examination. The secretary announced that the faculty had decided to award the former to Mr. Albert R. Griffith, and the latter to Mr. Gustav Kreutzer, and the prizes were then presented to the gentlemen named by President Russell of the Board of Trustees. The exercises were brought to a close by the pronouncing of the benediction by President Potter.

Upon the conclusion of the commencement exercises the trustees, faculty, graduates and invited guests, assembled at the Windsor restaurant where a dinner was served and social festivity prevailed.

ADDRESS.

YOUNG GENTLEMEN :

It is a pleasing, if not a completely established theory of medical philosophy, that every physical ailment has, somewhere in the dispensary of nature, its proper and sufficient remedy. We can scarcely bring ourselves to admit that in this wonderfully contrived universe, with its system of balanced tendencies and forces, there can be left one pain, or one disease, for which there is not also provided its fitting antidote. We know that animals, by a natural instinct, are able to find the plants which will relieve them from suffering. A sick dog will provide himself with a medicine found among the grasses. Wild animals, bitten by venomous serpents, are said to find an antidote among the plants of the forest. It is one of the legends concerning the discovery of healing remedies among the ancient Greeks, that Dictamus learned the uses of veterinary herbs from the wild goats, in the island of Crete. It is easy to conceive that men in a savage state, assimilating in their condition and instincts to the wild beasts, living on terms of intimacy with them, and watching with constant alertness their habits, their food and habitations, the perils and limitations of their lives, should learn far more concerning them than civilized man can ever learn. It is not a mere fancy, I think, when we attribute to the American Indian, who spent his life amid the forests, and who knew the ways of the bear and the panther, as we know those of the dog and the cat, a knowledge which tradition and experience had taught him of the curative properties of plants, greater by far than that of his pale-faced neighbor. Many of the most valuable specifics which now enter into our *Materia Medica*, have been brought to us from the uncivilized tribes of the earth. Cinchona, I remember, was found by the Spaniards in use among the Peruvians, and Madame Chinchon, the wife of the Spanish Viceroy, having been cured by it of an ague, recommended it to her friends in Spain. Opium was brought to us from India, jalap came from Mexico, ipecacuanha from South America, catechu from India, lobelia or Indian tobacco from the American Indians; and if my knowledge was only as extensive as yours, I might enumerate many more, and more striking instances of valuable specifics obtained from un-

civilized nations. The truth of the matter is that the great mass of the remedies, which are now used in medicine, have come to us, not by any scientific investigation of their composition and properties, but have been the contributions of accident, or of the experiences of a primitive civilization.

The changes and transformations through which pharmacy has passed in reaching its present rational state, are marvelous. No more interesting chapter in human history could be written than one upon the art of healing. The poor fellow in Homer's time, who was so unfortunate as to have a spear-head run into him, was laid on the ground and a comrade, grasping the shattered shaft and putting his foot against the wounded body, drew it out by main strength. If the torrent of blood which followed did not carry life away with it, it was a miracle. If he escaped death from hemorrhage, death by gangrene was pretty sure to carry him off. Even the Romans, and later than the Romans, the nations of Europe, down to a comparatively recent period, had no better way to stop the bleeding of an amputated stump than to sear it with a hot iron. In an English statute of 1542, we find that when any person committed an assault in the king's palace or house, he was to have his hand stricken off; and it was ordered that there should be present at the execution the chief surgeon to sear the stump, the sergeant of the pantry to give bread to the person whose hand was stricken off, and the sergeant of the cellar to give a draft of red wine after the searing.

Both surgery and pharmacy were understood better in ancient Egypt than much later in Europe. The origin of some of the most difficult operations in surgery has been traced back to the learned practitioners of Egypt. From them, too, came that remarkable knowledge of sanitary science, and that skill in compounding drugs and ointments of which we find so many traces in the Hebrew scriptures.

I have no doubt, if we could go back to the times of Solomon and wander about his splendid capitol, we should note among the abounding signs of luxury and prosperity, a good supply of drug-stores. I picture to myself the magnificent old king, looking a little worn and weary with his life of indulgence, carrying in his face the air of disappointed misanthropy which breathes through the writings of his old age, but grand and high-bred in every gesture and movement.

It is the twilight of a summer's evening, and he sets out for a stroll leaning on the arm of Rehoboam, his son and heir, with a gay group of courtiers accompanying them. They stop before a pretty little shop, from whose open door comes floating out the rich fragrance of spices from far off shores, and whose shelves are gay with rows of pretty pots and jars. The druggist's boy is busy pulverizing the materials for a costly cosmetic which is destined perhaps for the toilet of the queen herself. The shrewd old king watches the process with amused interest for a few moments, and then turning with a significant look to his companion, he utters one of those wise and trenchant sayings which have come floating down to us on the tides of time: "Hark ye, my son, though thou bray a fool in a mortar with a pestle, yet will not his folly depart from him."

The great merit of modern pharmaceutical science is that it is rational; that when drugs are to be manufactured, or medicines compounded, the ingredients are fixed with some approximation to scientific precision. To reach this stage of perfection has required centuries of progress. The early attempts to apply

reason to the preparation of medicines seem to us now mere childishness. They prescribe for instance, for a fever, a certain herb, because it tasted cool; and they gave for agues such as tasted to the tongue hot and pungent. To this day the Chinese and Japanese prescribe pearls ground into powder for small-pox, because being itself smooth and lustrous it is supposed to counteract the disastrous havoc which that disease works in the human cuticle.

Old medicines were noted generally for the great number of ingredients they contained. Often twenty or thirty simples were mixed into one compound, and of course it was impossible to determine to which of them the medicine owed its healing virtue. Damocrates, a noted Greek, invented a medicine which was called the democratic confection, which contained forty-four ingredients. "Sovereign water," which was a famous remedy invented by an old English doctor, was composed of *all* known spices and odorous herbs, distilled in claret. With this the doctor preserved his own life to such extreme old age that he could neither walk nor ride, and he continued bed-ridden for five years.

The virtues of herbs were often determined by the most fanciful considerations. There was, for instance, what was called the principle of *signatures*. According to this theory, plants bore about them marks or signatures attesting their uses in producing cures. Thus, walnuts were said to have the perfect signature of the head; the outer husk represented the pericranium, and, therefore, a decoction made from these husks was exceeding good for wounds in the head; the inner, woody shell, had the signature of the skull, and the little yellow skin, or peel, that of the *dura* and *pia-mater*, which are the thin scarfs which envelop the brain; the kernel had "the very figure of the brain, and, therefore, was very profitable for the brain, and resisted poisons. Capillary herbs were considered sovereign in diseases of the hair. Roots, barks and flowers, which were yellow, cured the yellow jaundice.

Scarcely less absurd was the belief in the curative properties of certain metals, a belief derived not from the results of experiment, but from some innate virtue which they were fancied to contain. The absurd story is told of the famous and godly Richard Baxter, that having read in the works of Dr. Gebhard, "the admirable effects produced on his father, by swallowing a gold bullet," he ordered a gold bullet of between twenty and thirty shillings' weight, and swallowed it. "Having taken it," he says, "I knew not how to be delivered of it again. I took clysters and purges for about three weeks, but nothing stirred it. But at last my neighbors set apart a day to pray for me, and I was freed from my danger in the beginning of that day."

But I think the most famous of all prescriptions, are the three for which the British Parliament, in 1738, voted £5,000. Joanna Stephens was at that time a famous doctress. Her practice was among the highest nobility and gentry. Her cures were so conspicuous that lords and ladies gave her written testimonials. She published books rehearsing her marvelous cures, and containing the letters of her great patrons. But at last she grew weary of practice and wished to retire. She was willing to sell the secret of her cures for £5,000, and her more zealous friends proposed to raise the sum by subscription. Many of the highest names appear on this subscription list. But they could not raise the

full amount, and the sibyl would not abate from her price. At last her friends appealed to Parliament, and actually succeeded in getting a grant for the amount. A commission was appointed to receive her secret, and pay her the money. Here is her grand secret :

“My medicines are a powder, a decoction and pills. The powder consisteth of egg-shells and snails both calcined. The decoction is made by boiling some husks, together with a ball (which consists of soap, swine’s-cress burnt to blackness and honey) in water. The pills consist of snails calcined, wild carrot seeds, burdock seeds, ashen keys, hips and haws, all burnt to blackness, soap and honey.”

Then the venerable old quack gives to the commission a full and accurate description of the method of manufacturing these precious nostrums. And for this the British Parliament paid down its money, and no doubt thought it a noble and generous transaction.

But the days of such inanities are gone, we hope, forever. The very fact that we laugh at these absurd reminiscences of medical history, shows how far past these puerilities it has progressed. Pharmacy is no longer a crude empirical system, concocting nostrums without reason, and trying experiments on the human system. It is a science, and it is because it is a science, and its investigations are pursued by scientific methods, that it is possible to establish such institutions as this College of Pharmacy, for the systematic training of those who are to devote themselves to it. It is founded on two departments of human knowledge, in both of which a steady progress is maintained, viz. : Physiology and Chemistry. Year by year we find ourselves groping farther and farther into the hidden recesses of the human organism. We are finding, as we advance, that the mysteries attending the assimilation of external matter into the bodily tissues are disappearing. That the digestion of food, the absorption of nutriment, the circulation of the blood, the contraction of the muscles, are, after all, chemical and dynamical processes, which are amenable to the laws which hold elsewhere in the domain of nature. The moment we announce this great doctrine, the mystery attending the effects of medicine on the human system disappears. It is nothing more nor less than a chemical experiment, in which we bring together certain substances and the inevitable reaction takes place. We may not be able to make out clearly what this reaction, in every case, is. We know too little yet of physiology to trace, with unerring precision, the entire operation which takes place within the hidden or half-hidden recesses of the body. But we no longer are liable to be carried away with vain fancies, as to the character and bearing of these operations. We know they occur according to natural laws, and that human investigation and reason are competent to grapple with the problem and make it plain.

We no longer fall into the folly of mingling medicines without a reason. Each disease has its cause, and its consequent lesion, disorganization or disruption of parts. Our medicines must be selected and constituted in such a way as to arrest and repair the injury. How we know and determine the proper remedy, must always be the result of a knowledge derived from experience, and a scientific insight derived from physiological and chemical investigation.

It is here, gentlemen, where your profession is of inestimable service in the art of healing. Your duty is to investigate the physiological properties of medi-

cial substances. You must strip these medicines of all mystery, and reduce to a perfect formula the effect to be anticipated from their application. You are to make sure that your drugs are pure, so that no element of uncertainty may be introduced. You are to compound them with absolute fidelity, so that the practitioner may know that his patients obtain exactly what he prescribes.

Now it is plain from this that it is no light matter to be a pharmacist, and that the notion that the compounding of medicines may be left to ignorant and untrained men, is most dangerous and impolitic. We may leave the business of a tailor or a grocer or a merchant or a banker to take care of itself, by the natural laws of trade. But when it comes to the profession of a doctor who prescribes medicines, and a pharmacist who prepares them, the good of the community requires that there should be some restrictions.

First of all, and this is the point with which we are most concerned, to-night, we want educated pharmacists. It is impossible that the duties involved in this business can be performed by ignorant and unskilled persons. It is dangerous to life and health to put such materials into untrained hands. For this reason I hailed with satisfaction the establishment of this College of Pharmacy; and to-night, at its first commencement, I am glad to stand here and address its first graduating class. I feel assured that you will do credit to the training you have received, and that you are the pioneers in a long succession of classes, who will go out from this institution to benefit the world, and raise the standard of your profession.