# A HISTORY

OF THE

# MEDICAL DEPARTMENT

OF THE

# UNIVERSITY OF PENNSYLVANIA,

FROM ITS

## FOUNDATION IN 1765.

WITH

SKETCHES OF THE LIVES OF DECEASED PROFESSORS.

BY

JOSEPH CARSON, M.D.,

PROFESSOR OF MATERIA MEDICA AND PHARMACY IN THE UNIVERSITY OF PENNSYLVANIA;
MEMBER OF THE AMERICAN PHILOSOPHICAL SOCIETY, ETC.

PHILADELPHIA:
LINDSAY AND BLAKISTON.
1869.

PHILADELPHIA:
COLLINS, PRINTER, 705 JAYNE STREET.

TO THE ALUMNI

OF THE

MEDICAL DEPARTMENT

OF THE

UNIVERSITY OF PENNSYLVANIA,

This Work

IS

RESPECTFULLY DEDICATED

BY

THEIR OBEDIENT SERVANT

THE AUTHOR

# PREFACE.

THE author of this History of the Medical Department of the University of Pennsylvania was appointed to deliver the opening lecture of the course of 1865, on the occasion of the centenary anniversary. That lecture, delivered at the request of the Faculty, consisted of a succinct statement of events preceding, and of the circumstances connected with, the foundation of the Medical School, with an exposition of the character and labors of the individuals who were prominent in the enterprise of transferring medical education from the Old World to the New, and who by their learning, talents, and energy contributed to its success. It was written for public delivery, and was by no means a complete history of the Medical Department of the University.

Although urged to the publication of that lecture, the author conceived that a more extended account should be given of the origin and progress of the School, and that a fuller notice should be presented of the lives of the eminent men who, by establishing its reputation and extending its usefulness, were identified with its history. A considerable amount of materials had been collected to accomplish this object, but the entire field of research had not been exhausted, and many sources of information still remained available. In the intervals of leisure since the period referred to, the author has been steadily employed in collecting

all the materials necessary for the extended history that is now placed before the medical public.

It is proper to state that a brief account of the Medical School has been in print for many years, prepared originally by Professor Wood as a valedictory discourse to the class of 1836. This was subsequently printed in connection with the catalogue of the graduates. Another notice of the Medical Department, by the same author, is contained in a General History of the College and University published in the third volume of the "Transactions of the Historical Society of Pennsylvania;" these have been employed for comparison and verification of impressions derived from original authorities.

The main sources from which the author has derived his materials are the Minutes of the Board of Trustees and those of the Medical Faculty. The former are entire from the foundation of the Academy and College; while the latter date from 1800. He has also consulted the Minutes of the Pennsylvania Hospital, and of the Philosophical Society, and the manuscript documents preserved in the Historical Society, as well as the public papers, more particularly the "Pennsylvania Gazette" and the "Pennsylvania Journal." To these may be added numerous original letters in his own possession. He is largely indebted to biographies—many of them extremely rare—of the Professors who, at different epochs, have been connected with the University, and to the pamphlets and documents contained in the Philadelphia Library, as well as in the libraries of the Philosophical and the Historical Societies, and more especially in that of the Pennsylvania Hospital, which is rich not only in medical science, but in medical history.

Reference has been made to every source from which information is derived. There are, moreover, several mooted points discussed in the progress of the history which the

author has endeavored to place in their correct light; in doing which it seemed just that the authority upon which statements are made should be open for examination.

In the publication of the work, great pleasure is taken in acknowledging the obligation the author is under to his friend, Dr. La Roche, for assistance with the revision, and for many valuable suggestions that have been adopted.

The work has occupied much time in its preparation, and entailed a large amount of labor, ample recompense for which will be received should it subserve the design for which it has been written—namely, to communicate to his fellow-alumni all the information he has been able to gather with respect to the history of their Alma Mater.

# CONTENTS.


## CHAPTER I.

PAGE

INTRODUCTION . . . . . 17

## CHAPTER II.

The first physicians of Pennsylvania—Their education abroad—Their professional and public influence—The succeeding generation of medical men, and their education at home and abroad—Their character and labors—The institution of the American Philosophical Society, and of the Pennsylvania Hospital . . . . . 26

## CHAPTER III.

Commencement of medical teaching in America—Dr. Cadwalader's lectures on anatomy in Philadelphia—Dr. Hunter's lectures at Newport—Dr. Shippen, Jr., opens an anatomical school—Dr. Fothergill's contributions for teaching anatomy—Dr. John Morgan, his education and early labors—Dr. Shippen's education and studies—Dr. Morgan submits his plan of a medical school to the trustees of the college . . . . . 39

## CHAPTER IV.

Foundation of the College of Philadelphia—Application of Dr. Morgan—His appointment to the professorship of theory and practice of physic—His public discourse—Dr. Shippen appointed Professor of Anatomy and Surgery—Organization of the medical department—Dr. Bond delivers clinical lectures in the Pennsylvania Hospital—Rules for the government of the medical department of the College—Dr. Wm. Smith's lectures on natural and experimental philosophy . 52

## CHAPTER V.

Dr. Adam Kuhn; education and appointment to the professorship of botany and materia medica—Fees of the college—Degree of Bachelor of Medicine conferred in 1768—Degree of Doctor of Medicine

PAGE

conferred in New York in 1769—Commencement exercises of the college on the occasion of conferring the degree of M. B.—Dr. Benjamin Rush; his education and correspondence while in Europe; appointment to the professorship of chemistry—First faculty of medicine organized—Commencement of 1771 . . . . . 64

CHAPTER VI.

Connection between the medical department of the College of Philadelphia and that of the University of Edinburgh—Sketch of the origin of the Edinburgh school and of its position in 1768—Dr. Cullen . . . . . 77

CHAPTER VII.

Effect of the American Revolution upon the College of Philadelphia—Abrogation of its charter and the establishment of the University of the State of Pennsylvania—Restoration of the charter and privileges to the college—Union of the two institutions under the name of University of Pennsylvania . . . . . 86

CHAPTER VIII.

Death of Dr. Hutchinson—Sketch of his life—Election of Dr. Woodhouse to the professorship of chemistry—Resignation of Dr. Griffitts—Sketch of his life—Election of Dr. Barton to the chair of materia medica—Resignation of Dr. Kuhn and election of Dr. Rush to the chair of practice—Creation of the chair of surgery and election of Dr. Physick, professor—First recognition of the ad eundem footing. Petition to the legislature with respect to irregular practitioners—Death of Dr. Shippen and election of Dr. Wistar—Death of Dr. Woodhouse and sketch of his life—Election of Dr. Coxe to the chair of chemistry—Opinion of the faculty with respect to chemistry . 99

CHAPTER IX.

Separation of Obstetrics from the Chair of Anatomy—Estimation of this branch in Europe, and its elevation to an equal position with other branches of the Medical Schools—Dr. Shippen's endeavors to improve its condition in America—Election of Dr. James to the Chair of Obstetrics in the University of Pennsylvania—The tardy admission of the subject to an equality with others—Mode of examining for degrees—New By-Laws for the regulation of the Medical Department—Rules for graduation . . . . . 110

## CHAPTER X.

PAGE

Death of Dr. Rush—His services to the Medical School and his doctrines—Election of Dr. Barton to the Chair of Practice, and of Dr. Chapman to that of Materia Medica—Death of Dr. Barton—Sketch of his life and labors as a teacher and naturalist—Election of Dr. Chapman to the Professorship of Practice, and of Dr. Dorsey to that of Materia Medica . . . . . 120

## CHAPTER XI.

A Faculty of Natural Sciences organized by the Board of Trustees. Death of Dr. Wistar—Sketch of his life and services to the University—Anatomical Museum—Dr. Dorsey succeeds Dr. Wistar—Death of Dr. Dorsey—Sketch of his life—Transfer of Dr. Physick to the Chair of Anatomy—Election of Dr. Gibson to the Chair of Surgery—Dr. Horner appointed Adjunct Professor of Anatomy . . . . 134

## CHAPTER XII.

Degrees in Pharmacy—Foundation of six studentships in the Medical Department—Appointment of Dr. Dewees Adjunct Professor of Obstetrics and the Diseases of Women and Children—Settlement of the ad eundem footing of other Schools of Medicine—Application for the transfer of the Botanical Professorship to the Medical Faculty—Appointment of Dr. Samuel Jackson as an Assistant to the Professor of Practice, &c., to teach the Institutes of Medicine—Resignation of Dr. Physick; sketch of his life and services—Election of Dr. Horner to the Chair of Anatomy . . . . . 145

## CHAPTER XIII.

Resignation of Dr. James—Sketch of his life—Dr. Dewees elected Professor of Obstetrics—Retirement of Dr. Coxe from the Chair of Materia Medica—Sketch of his life—Restitution of the Chair of Institutes—Election of Dr. Jackson to it—Election of Dr. Wood to the Professorship of Materia Medica and Pharmacy—Resignation of Dr. Dewees and election of Dr. Hodge—Sketch of the life of Dr. Dewees—Faculty as organized in 1835 . . . . . 154

## CHAPTER XIV.

Resignation of Dr. Hare—Sketch of his life—Election of Dr. James B. Rogers to the Chair of Chemistry—Change in the lecture term—Resignation of Dr. Chapman—Sketch of his life—Election of Dr. Wood to the Chair of Practice, and of Dr. Carson to that of Materia Medica and Pharmacy . . . . . 165

## CHAPTER XV.

PAGE

Death of Dr. James B. Rogers—Sketch of his life—Election of Dr. Robert E. Rogers to the Chair of Chemistry—Death of Dr. Horner—Sketch of his life—Election of Dr. Leidy to the Chair of Anatomy—Resignation of Dr. Gibson, Sketch of his Life—Election of Dr. Henry H. Smith to the Professorship of Surgery—Resignation of Dr. Wood—Election of Dr. Pepper to the Chair of Practice—Resignation of Dr. Jackson and of Dr. Hodge—Election of Dr. F. G. Smith to the Chair of Institutes, and of Dr. Penrose to that of Obstetrics—Resignation of Dr. Pepper and his decease—Sketch of his life—Election of Dr. A. Stillé to the Chair of Practice—Supplementary Course of Lectures . . . . . 180

## CHAPTER XVI.

Clinical instruction . . . . . 192

## CHAPTER XVII.

University Buildings and accommodations for the delivery of the lectures . . . . . 205

APPENDIX . . . . . 213

INDEX . . . . . 223

# HISTORY

OF THE

# MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.

## CHAPTER I.

### INTRODUCTION.

THE most enlightened nations of all periods have perceived the advantages, and zealously promoted the formation of colonial settlements. Accordingly those nations who most figure in the records of history were more or less engaged, at the acme of their prosperity, in thus extending the sphere of their influence and authority. In the language of William Penn, "Colonies are the seeds of nations, begun and nourished by the care of wise and populous countries, as conceiving them best for the increase of human stock, and beneficial for commerce."[1]

Without detailing the numerous instances of enterprise in this direction, or the circumstances attending their varied fortune, it will be pertinent to the subject of present interest to state prominently the fact, that of all the races who have been thus distinguished, not one has been more successful than that branch of the Teutonic stock from which we are lineally descended. Conqueror of the Roman Empire, and the legitimate inheritor of its glory, the race of Teutons has sent its sons broadcast over the earth, and has its offshoots,

[1] Penn, in issuing his proposals, entered into an elaborate argument to show the advantages of colonization.—Penn's Works, fol. Annals of Pennsylvania, by Samuel Hazard, pp. 305.

as flourishing communities, on every continent. Deriving our descent from this redoubtable people through Anglo-Saxon ancestry, we are in this land to-day the representatives of a civilization which has never lost a foot of soil to which it has been transplanted, nor yielded, by force of arms, to any rival or competitor for supremacy; for wherever Anglo-Saxon domination has been carried, there has it been permanently established.

The colonists of North America had all the qualities to secure a permanent foothold, and to extend territorial dominion. They seem to have counted the cost of relinquishing the attractions and advantages of European civilization, and having determined to cast their lot in a distant land, and settle in a wilderness, were ready to undergo the privations, hardships, and frequent perils incident to so bold an undertaking. With stout hearts, vigorous frames, firm and unwavering faith, and confidence in an unconquerable will to surmount obstacles necessarily to be encountered, they persevered tenaciously in their efforts, and, slowly emerging from their difficulties, were eminently successful in converting the primeval forest into a dwelling-place of abundance and luxury. The country they were preordained to subjugate, and to transmit as an inheritance to their children, was no El Dorado. To obtain gold or silver, or precious stones, from its streams or mountains, entered into the imagination only of the wildest dreamers; but it possessed a virgin soil of untold richness, and bays and rivers of vast proportions; and it had every requisite for the support of an industrious, enterprising, self-reliant people, who would bestow their labor without stint, and by the sweat of their brow render nature herself conducive to the acquisition of independence, prosperity, and wealth. The settlers soon discovered that their land of promise was a cereal producing country, by the cultivation of which bread could be produced in abundance for domestic demand, and to spare; that the plough and the sickle were the engines of present and prospective affluence, and that upon the use of these must depend everything that contributes to the erection of a flourishing community, of a first-class power among the nations, with its commerce, manu-

factures, and arts.[1] In 1680 Mahlon Stacy wrote thus to a friend in England, from New Jersey: "We have wanted nothing since we came hither but the company of our good friends and acquaintances; all our people are very well, and in a hopeful way to live much better than they ever did, and not only so, but to provide well for their posterity. I live as well to my content, and in as great plenty as ever I did, and in a far more likely way to make an estate."[2]

Writers upon political economy, when estimating the sources of the wealth and prosperity of nations, have given comparatively too little attention to the importance of one natural family of the vegetable kingdom, the *Gramineæ;* yet with reference to ourselves, its cultivation was the foundation of our first successes, of our prodigious growth and augmentation, of our moral and intellectual elevation, and of our influence upon mankind. Food, then, has been made a dominant power, and all creation virtually recognizes the truth of the assertion.

With the relief from anxiety and concern for immediate and temporary requirements, and an improvement in material sources of prosperity, came new wants, spontaneously arising, to a thriving, active, and reasoning people. The need of literary and scientific cultivation was fully understood, and incited to practical endeavors to meet its suggestions. The school and the schoolmaster were early introduced as an institution, and we may advert with interest, not unmingled with pleasure and pride, to the former days when the rustic school-house and the "Log College" were the seats of educa-

[1] That enthusiastic writer, Gabriel Thomas, when speaking of the crops of the settlers, informs us that "Their sorts of grain are Wheat, Rye, Pease, Oats, Barley, Buckwheat, Rice, Indian Corn, Indian Pease, and Beans, with great quantities of Hemp and Flax, as also several sorts of eating Roots and Turnips, Potatoes, Carrots, Parsnips, etc., all of which are produced yearly in greater quantities than in England. There are several Husbandmen who sow yearly between seventy and eighty acres of Wheat, each, besides Barley, Oates, Pease, and Beans."—An Historical and Geographical Account of the Province and Country of Pennsylvania and of West Jersey in America, etc., by Gabriel Thomas, who resided there about fifteen years: London, 1698, p. 10.

[2] Smith's New Jersey, p. 114.

tion and learning of the country, when, with spelling and reading, with writing and arithmetic, the classics and philosophy constituted the daily round of teaching imposed on one professor. From such humble beginnings have proceeded the most successful and elaborately-organized educational establishments, which having acquired a world-wide reputation, and in the full tide of usefulness, are evidences of the intelligence and refinement of the nation.

Besides the necessity of systematic instruction for the prosecution of the increasing business of the people, and for the extension of their relations at home and abroad, there was soon felt that of providing for the future successful performance of professional duties. As population multiplied, this need was thoroughly appreciated. The educated men had become, from the earliest period of the settlements, the leading characters, whether occupied in administering the laws, and governing the State, in expounding the doctrines of religious belief, or in administering to the sick; and hence a respect for the higher orders of learning which were regarded as conducive to efficiency and usefulness became fixed in the minds of the community. The first practitioners of the healing art had been educated in the parent country; when following the fortunes of their less gifted countrymen they had become participants of their struggles and trials. Such were the few medical men who first landed on our shores, and who encountered all the difficulties of administering to the ailments incident to a new climate, aggravated by deficient facilities of protection from the elements and exposure. They were, in many instances, possessed of a thorough education and of classical accomplishments, and nobly sustained their part in the untried scenes through which they passed.

In some cases the theological and medical professions were united in the same individual, medicine being studied as an accessory science, with the especial view—as is now frequently done by our missionaries—to meet the exigencies of administering, if required, not only in spiritual concerns, but in bodily derangements. This union of the clerical and medical professions has been adverted to by Dr. Thatcher,

who thus explains it: "The inducements to emigrate, with the large proportion of the colonists, was of a religious nature. They were restive and unhappy under the restrictions and even persecutions which emanated from the bigotry of the Church Establishment of England." "The Puritan clergy of England were, for more than twenty years prior to the emigration of the first settlers, subjected to the sharpest persecution. Hence, as a precautionary measure in case of an ejectment, a considerable number of clergymen of that period were educated to the medical profession, and not a few were eminent practitioners before they crossed the Atlantic. When these professional men came to form connections in the Colonies, it was found that the small congregations were unable to afford them a comfortable support; hence the necessity and convenience of their resorting to secular avocations."

Dr. Sewell remarks, in this connection, that "so far were the professions of Divinity and Medicine united that the clergy not only prescribed for the sick, but entered into medical controversies, and wrote practical works on the diseases of the country." There were several medical works published in America at an early date by divines. A physician as well as a learned clergyman of Boston, Thomas Thatcher, in 1677, published a work entitled, "A Brief Guide in the Smallpox and Measles." This was soon followed by the work of another clergyman, which bore the title of "A Good Management under the Distemper of the Measles."[1] The Rev. Benjamin Colman, also of Boston, printed a small pamphlet entitled, "Some Account of the New Method of Receiving the Smallpox, by Grafting or Inoculating." Nathaniel Williams wrote a pamphlet on the "Method of the Practice in the Smallpox," published in 1730. And Thomas Howard, in 1732, put forth a treatise upon Pharmacy.[2] Even

[1] A Lecture delivered at the opening of the Medical Department of Columbia College, in the District of Columbia, March 30, 1825, by Thomas Sewell, M. D., Professor of Anatomy and Physiology, Washington City. (p. 8.)

[2] An Historical Sketch of the state of Medicine in the American Colonies from their first settlement to the period of the Revolution, by John B. Beck, M. D.—Transactions of the New York State Medical Society, 1850.

as late as 1775, we find, in the "Pennsylvania Magazine" for April, the history of a malignant fever, attended with some new symptoms, in Sussex County, Delaware, by the Rev. Mr. Matthew Wilson, of Lewestown.[1]

The two avocations, however, occasionally interfered with each other, as is illustrated by the following incident: In a neighboring State, a theological physician was in the midst of his usual Sunday services when a message was conveyed to him that a negro girl was dangerously ill and needed his medical attention. Having no other means in the pulpit of giving his directions, he seized a hymn-book and wrote upon the fly-leaf, "Let the wench be blooded, and wait until I come." The book is now in the possession of the clerical grandson of the clerical doctor, who in his day was an influential personage.

It must not be supposed that from the very commencement of the settlements there was the highest degree of skill, or consummate learning. The colonists, in the infancy of their establishments, were apparently satisfied with a moderate amount of professional competency. It is recorded that "Jan Petersen, from Alfendolft, was employed as barber (as surgeons were then denominated) on South River (Delaware) at ten guilders per month from the 1st of July, 1638."[2] At a little later period, we are told by Gordon that the salary of a secretary in New Sweden was eight dollars a month, of a barber ten, and of a provost six. He adds: "We must not infer from comparison of the wages of the secretary and barber, that the latter was most valued, though most appreciated. The first had doubtless the most honor, though the second had a greater compensation in base lucre."[3]

When the Swedish possessions had passed into the hands of the Dutch, the Director of the colony at New Arnstel (afterwards New Castle), Aldricks, writes "that our actual situation is certainly very distressing by an ardent prevailing fever, and other diseases, by which the large majority of the inhabitants are oppressed and broken down; besides that, our

[1] The letter giving this account is dated March 22, 1775.
[2] Annals of Pennsylvania, p. 49, from Albany Papers.
[3] The History of New Jersey, by Thomas F. Gordon, p. 13.

barber died, and another, well acquainted with his profession, is very sick."[1] The practice of the times was probably confined to bleeding, and the administration of salts and simples. These did not always succeed, however, for in some of the references in connection with epidemic disorders, it is stated that this mode of treatment was unsuccessful. A low type of disease may have been prevalent.

There are other allusions made to the Dutch-Swedish Colony on the Delaware. In a letter from Aldricks to the Director-General, Stuyvesant, March, 1659, the "causes" then operating against it are stated; among others, "that prevailing violent sickness which wasted a vast deal of goods and blood from one year to another, and which not only raged here, but everywhere throughout this province, and which consequently retarded, not only our progress in agriculture, but threw a damp over other undertakings." In 1660, Beekman, the Collector, speaks of "Peter Tenneman to be employed as a surgeon by the Company," and adds: "We are in want of a good surgeon, as it happened already more than once; thereto we wanted very much Mr. Williams, the barber (surgeon) in this city; but having then some patients there (probably New York) he could not come hither, and when he came he often had not by him such medicaments as the patients required, wherefore the sick are suffering."[2]

These extracts furnish an interesting view of the posture of affairs, and of the difficulties encountered at the period.

The profession has always been burdened with charlatans, and the early history of it in this country presents no exception. Smith, who wrote in 1758, when speaking of the profession of New York, says: "A few physicians among us are eminent for their skill. Quacks abound like locusts in Egypt, and too many have been recommended to a full practice and profitable subsistence; this is less to be wondered at, as the

[1] This picture differs from a somewhat spiteful one of affairs by Gabriel Thomas: "Of Lawyers and Physicians I shall say nothing, because this Countrey is very Peaceable and Healty (*sic*); long may it so continue, and never have occasion for the Tongue of the one, nor the Pen of the other—both equally destructive to Men's Estates and Lives; besides, forsooth, they, Hangman like, have a License to Murder and make Mischief."—Op. cit., p. 32.

[2] Annals of Pennsylvania, p. 308.

profession is under no kind of regulation. Loud as the call is, to our shame be it remembered, we have no law to protect the lives of the king's subjects from the malpractice of pretenders. Any man, at his pleasure, sets up for physician, apothecary, and chirurgeon. No candidates are either examined, licensed, or were sworn to fair practice."[1] This condition of things was also exhibited by Dr. Peter Middleton in his introductory lecture in 1768, upon the opening of the Medical School, who stigmatized a class of practitioners as the "needy outcasts of other places in the character of doctors."[2]

There is an instinctive tendency among scientific men, when transplanted to new and unexplored localities, to investigate the objects of natural interest to which they are introduced, and none could have been better calculated to arouse curiosity, or lead to exploration, than the surroundings of the colonial physicians. The natural science with which they were best acquainted was botany. It had necessarily entered into their studies as an element of medical education, and was so closely associated with the therapeutical methods of the time, that the transition was an easy and attractive one from the study of the plants to which they had been accustomed to unknown productions everywhere thrust upon their observation.

The rich and resplendent Flora of North America was a subject for wonder and contemplation to the true votary of nature, well calculated to awaken his enthusiasm, irrespective of the practical application that might be made of its study and investigation to the interests of humanity. When Professor Kalm, of Obo, a distinguished naturalist, was sent by the Universities of Sweden and the Government to this country in 1748, he landed in Philadelphia, and thus narrates his impressions: "I found that I was now come into a new world. Wherever I looked to the ground I everywhere found such plants as I had never seen before. When I saw a tree, I was forced to stop and ask those who accompanied me, how it was called. The first plant which struck my eyes was an *andropogon*, or

[1] History of New York, by William Smith, A. M., p. 336.
[2] See Beck's Historical Sketch, before quoted.

kind of grass—and grass is a part of botany I always delighted in. I was seized with terror at the thought of ranging through so many new and unknown parts of natural history."[1] This was an instinctive expression of feeling on the part of one of the most accomplished naturalists of the age. The colonial physicians were not neglectful of resources that lay within their reach. Stimulated by a desire to render themselves independent in the supply of their remedial agents, they made important discoveries in regard to the value of indigenous plants, which have stood the test of experience. By them standard additions were made to the Materia Medica list, not only of this country, but of Europe. Some of the medicinal productions of the continent of America were known to the aborigines.[2] The names of Clayton, Tennant, Lining, Chalmers, Garden, Shoeff, Colden, and Mitchell, may be honorably mentioned in association with the botanical productions of North America; and in compliment to several of them Linnæus named such genera as emanated from their researches. It is stated that Dr. Tennant received one hundred pounds from the Virginia legislature, in 1739, in consequence of the discovery of the efficacy of *senega* in pleurisy. Dr. Garden's name is closely connected with the recognition of the anthelmintic properties of Spigelia Marilandica.[3]

[1] Kalm's Travels in North America, vol. i. p. 31.

[2] The way in which the resources of the country were viewed by certain persons who wrote upon the subject at an early date, may be judged of from the following extract of Gabriel Thomas's account of Pennsylvania, published in 1698: "There are also many curious and excellent *physical* wild herbs, roots, and drugs, of great virtue and very sanative, as the *sassafras* and *sarsaparilla*, so much used in diet drinks, for the cure of the venereal disease, which makes the Indians, by a right application of them, as able doctors and surgeons as any in Europe, performing celebrated cures therewith, and by the use of some particular *plants* only, find remedy in all swellings, burnings, cuts, etc. There grows also in great plenty the *black snakeroot* (famed for its sometimes preserving from, but often curing the plague, being infused only in whine, brandy, or rumm), rattlesnake root, pokeroot—called, in England, jallop—with several other beneficial herbs, plants, roots, which physicians have approved of, far exceeding in nature and virtue those of other countries."—Op. cit., p. 18.

[3] An interesting lecture upon this subject was published by Professor Wood, introductory to his course of 1840, University of Pennsylvania. See, also, Thatcher's Medical Biography.

## CHAPTER II.

The first physicians of Pennsylvania — Their education abroad—Their professional and public influence—The succeeding generation of medical men, and their education at home and abroad—Their character and labors—The institution of the American Philosophical Society, and of the Pennsylvania Hospital.

WHEN Penn made up his company of emigrants, which, under his own guidance, landed on the shores of the Delaware in 1682, he was not unmindful of the medical wants of his incipient colony. Several well-educated members of the profession united their destiny with that of the party who arrived that year. It is known that one at least of these physicians was on board the Proprietary's own vessel, the *Welcome*, where his services were called into requisition on the voyage from England, as smallpox broke out among the crew and passengers shortly after their embarkation. The attention of a practitioner of the healing art must have been beneficial to those who were attacked by the disease, and, under such appalling circumstances, his presence must have been a source of encouragement and comfort to all who constituted the adventurous company. The individual referred to as having been on board the Welcome was *Thomas Wynne*.[1] Another skilful

[1] Mr. Edward Armstrong, the editor of the reprinted vol. i. of the Memoirs of the Historical Society of Pennsylvania, has taken pains to ascertain who were the individuals accompanying William Penn in the *Welcome*. The name of Thomas Wynne has been determined to be upon the list. We have reason to suppose that there were many, not enumerated, with respect to whom the direct proof is lost that they were in the same vessel as the Proprietary. With the scanty data that are now accessible, it is impossible to specify with accuracy of whom the entire company was composed. Several vessels arrived during the autumn and winter of the same year, and other individuals of the medical profession may have been passengers in them.—Appendix to vol. i. Mem. of Hist. Soc. of Pa., p. 32, and note.

physician who arrived at this period was *Dr. Griffith Owen.* It appears from the records that the sphere of operation in the immediate line of medical practice was too limited for all of the gentlemen who had arrived, and as they were men of the highest order of intelligence and acquirement, their talents were turned to account in organizing the settlement. Dr. Wynne was a Welsh gentleman, and is said to have practised previously with reputation in London. After serving as Speaker of the first Provincial Assembly of Pennsylvania, and being much employed in political business, he died in ten years from his arrival. From his public position he appears to have paid but little attention to medicine. Dr. Wynne left a son-in-law, Dr. Edward Jones, also one of the emigrants of 1682.[1] He settled in Merion Township, near Philadelphia, and enjoyed considerable repute as a physician.

Dr. Griffith Owen, whose merit and ability raised him to several offices of trust, continued his vocation as physician, "in which he was very knowing and eminent," as we are informed by Proud.[2] This gentleman, indeed, appears to have been the chief medical practitioner of Philadelphia, and was highly respected for his professional talents, integrity, and spirit. He left no record of a medical sort, and dying in 1717, at about the age of seventy, was succeeded by a son, who practised some time after his father's death.[3] Dr. Owen, besides his medical employment, was a preacher among Friends. The individuals of whom mention has been made were in the prime of life when they identified themselves with the success of the newly-created Province.

A narrative has been given by Thomas Story, of the first recorded surgical operation in Pennsylvania, as follows: "The next day, being the 1st of the 10th month (December, 1699, old style), we went over Chester Creek on a boat to the town, and as the Governor landed (William Penn's second

[1] Prior to 1700, Dr. John Goodson is spoken of as a surgeon of the city, as also Dr. Hodgson; of these gentlemen nothing has been transmitted to us.

[2] Proud's History of Pennsylvania.

[3] Eulogium upon Dr. William Shippen, Jr., by Dr. Caspar Wistar. Reference is made to these early physicians by Dr. Caspar Morris, in "Contributions to the Medical History of Pennsylvania."—Trans. Hist. Soc. of Pa., vol. i.

visit), some young men, officiously, and contrary to express command of some of the magistrates, fired two small sea pieces of cannon, and being ambitious of making three out of two, by firing one twice, one of the young men, darting in a cartridge of powder before the piece was sponged, had his left hand and arm shot to pieces; upon which a surgeon being sent for from on board a ship then riding, an amputation of the member was quickly resolved on by *Dr. Griffith Owen* (a Friend), the surgeon, and some other skilful persons present. But as the arm was cut off, some spirits in a basin happened to take fire, and being spilt on the surgeon's apron, set his clothes on fire, and there being a great crowd of spectators, some of them were in the way, and in danger of being scalded, as the surgeon himself was upon his hands and face, but running into the street, the fire was quenched, and so quick was he that the patient lost not very much blood, though left in that open, bleeding condition."[1]

In the progress of time, the inhabitants of the thriving and extended colony of Pennsylvania became so numerous as to require a greater number of medical attendants. In the year 1711, Dr. John Kearsley arrived; and in 1717, Dr. Thomas Graeme. Both of these medical men were well educated, and became distinguished citizens. Dr. Kearsley, although throughout his career extensively engaged in the practice of medicine and surgery, was not inattentive to the public interests of the province. He was a favorite of the people, and as a member of the House of Assembly, after advocating their interests in debate, was carried to his home upon their shoulders. From the Rev. Dr. Dorr we learn that "he was for fifty-three years a member of the vestry of Christ Church, and always took an active interest in all its concerns. To him, more than to any other individual, we are indebted for the present beautiful edifice, he having superintended the building from the commencement to its completion, and often was in advance large sums of money to defray the expense

[1] Journal of the Life of Thomas Story: printed at New Castle-upon-Tyne; fol., 1747, p. 245. Dr. Owen could not have been the surgeon of the vessel; he probably had gone to Chester to pay his respects to the Proprietary, William Penn, on his arrival.

of materials and the bills of workmen." When the church was completed, "on May 11, 1747, the vestry passed a vote of thanks, and ordered a piece of plate of the value of forty pounds, to be given to Dr. John Kearsley, for his care and trouble in rebuilding nad ornamenting the church, and as a lasting testimonial and acknowledgment of his services done for this church and congregation."[1]

Dr. Kearsley died in January, 1772, at the advanced age of eighty years, and "left by his will a large part of his estate both real and personal, in trust to the corporation of the united churches of Christ Church and St. Peter's, to found the institution which he named '*Christ Church Hospital*,' the design of which is to afford a comfortable home for respectable, aged, indigent females."[2] By judicious management this benefaction has proved a munificent one.

Dr. Thomas Graeme, after a long career in medicine, in which pursuit he from time to time performed the duty of health officer, became an officer of the customs, and a justice of the Supreme Court.[3] He finally retired to his country seat in Bucks County, where he spent the remainder of his life. This country seat has been known by the name of Graeme Park.

The influence of the intelligent and educated men whose names have been mentioned, was of incalculable advantage in all the ways where science and learning could be brought into requisition, but especially were their services important as teachers of their art and preceptors of the rising generation. The physicians who succeeded them were natives of the country. Of their number may be named Lloyd Zachary, Thomas Cadwalader, William Shippen, Sr., Thomas Bond, Phineas Bond, Cadwalader Evans, John Redman, John Bard, and John Kearsley, Jr. Several of these, as Zachary, Redman, and Kearsley, Jr., were the pupils—or, in the language then in vogue, the apprentices of the elder Kearsley, who, if the account speaks truly, was no lenient master.

[1] Historical Account of Christ Church, of Philadelphia, etc., by the Rev. Benjamin Dorr, D. D., 1841, p. 335.

[2] Ibid.

[3] Pa. Archives, 1728 to 1759.

"He treated his pupils with great rigor, and subjected them to the most menial employments." An apprenticeship at that time was no sinecure; it was a period of probation attended with toil and exactions. The pupil lived, for the most part, with his master — was constantly subject to his orders, whether in the task of preparing medicines to be used in his daily rounds, in carrying them to the patients, or in making fires, keeping the office clean, and other household duties now devolving upon domestics. "To these, Dr. Bard has been often heard to say, he would never have submitted but from apprehension of giving pain to his excellent mother, and the encouragement he received from the kindness of her particular friend, Mrs. Kearsley, of whom he always spoke in terms of the warmest gratitude, affection, and respect. Under such circumstances he persevered to the end of seven tedious years, stealing his hours of study from sleep, after the family had retired to rest, and before they arose from their beds."[1]

The desire for medical knowledge was not satisfied, on the part of these American pupils, with the limited means of education at the command of their preceptors, who, as far as they were able, bestowed a training in the handicraft of the profession; and it was regarded as important that a visit should be made to Europe to complete the course of acquirement. We therefore find that most of the individuals alluded to pursued this plan, and returned to the field of their duty with all the accomplishments that a residence at the schools of the old world could afford to zealous aspirants for usefulness and distinction. The facilities for improvement which were presented in Edinburgh, in London, or in Paris, attracted thither these neophytes in the healing art; and to good account, as was shown in their subsequent career, did they apply the fund of information there acquired. Another seat of medical improvement was Leyden, which possessed attractions from the distinguished reputation of Boerhaave, of

[1] Memoir of the late Dr. John Bard (American Medical Register, New York, vol. i. p. 61). Dr. Bard subsequently settled in New York, and both he and his son, Dr. Samuel Bard, one of the founders of the New York Medical School, were distinguished practitioners of that city.

Albinus, and of Gaubius. Not a few of the earlier physicians of our country graduated at that famous University.

The fruits of the assiduity of these earnest inquirers into the nature and cure of disease are manifest in the valuable contributions made by them to the literature and practice of the profession. Their observations in so novel and undescribed a field as the maladies of a recently-settled country, whose geographical position was so remote from the ancient haunts of men, could hardly fail to elicit materials for publication which would be received with interest and thankfulness by contemporaries and colaborers, as well as be calculated to excite attention in foreign lands.[1] The endeavors of the early physicians to contribute a share to the advancement of medical science are proofs of a thoughtful cultivation of it, and of a laudable desire to render the experience acquired available to others. They may be referred to with interest as the only means at our command of ascertaining the spirit which actuated and the principles which guided the pioneer fathers of the profession.[2]

But not solely from the achievements of medical men within the limited circle of their professional occupations must we judge of their character and worth. As liberally instructed individuals and as citizens, from the very nature of their

[1] Dr. Cadwalader published an "Essay on the West India Dry Gripes, with the Method of Curing that Cruel Distemper. To which is added an Extraordinary Case in Physic. Printed and sold by B. Franklin, 1745." In the "Gentleman's Magazine" of 1769 appeared an account of Angina maligna, which prevailed in Philadelphia in 1746 and 1760, by John Kearsley, Jr.

[2] The subject of inoculation as a protection from smallpox was a prominent one among the physicians of Philadelphia. It was discussed publicly, and had its advocates and opponents. In 1736 the success of the practice was published. Drs. Kearsley, Zachary, Hooper, Cadwalader, Shippen, Bond, and Somers, advocated and practised it. (Watson, vol. ii. p. 373.) See also a valuable exposition of inoculation in the Transactions of the State Medical Society of Pennsylvania, 1865, by J. M. Tonner, M. D. A number of papers by American physicians may be found in the "Medical Observations and Inquiries by a Society of Physicians of London." Among them is a relation of a cure performed by electricity, by Dr. Cadwalader Evans, at Philadelphia, dated October 21, 1754. This cure was effected by the apparatus of Dr. Franklin, applied by himself in September, 1752.

position, there are duties and obligations imposed upon them which must be responded to in the readiest spirit. To act up to the demand of their noble avocation, they must either be leaders or associates in enterprises that are calculated to expand the domain of true learning and information, or that, originating in benevolence, will conduce to an amelioration of the social, moral, or physical condition of the community. It can, without fear of contradiction, be asserted that such a course has been pursued by the medical profession from the very foundation of the Colonies to the present time of their development into wealthy and prosperous commonwealths. It does not enter into the design of this history to trace out all the manifold channels of exertion into which intelligence and philanthropy were directed in connection with the medical profession; yet, when adverting to occurrences which preceded the establishment of the School of Medicine, it would be an omission if we were to take no notice of some of them which have had an influence upon its rise and progress. We may, then, pertinently refer to the origin of two institutions in which medical men took part, and to whose success they have largely contributed their share of labor. The first of these was founded with the design of reciprocal culture and the advancement of science and philosophy; the second was a benevolent and philanthropic undertaking.

The history of the American Philosophical Society has been particularly detailed in an interesting and elaborately prepared discourse by the Vice-President, Dr. Robert M. Patterson, delivered on the occasion of celebrating the Hundredth Anniversary, May 25, 1843. It is our purpose now to exhibit the part taken in its concerns by the members of the medical profession.

The originator of this Society was Franklin, who, finding that the time had come for a more extensive combination than that which for many years had borne the name of the Junto, on May 14, 1743, corresponding in the Gregorian Calendar to May 25, issued a "Proposal for promoting useful knowledge among the British Plantations in America." The enumeration of the subjects on which it was designed that the

society should be occupied, included botany, medicine, mineralogy and mining, chemistry, mechanics, the arts, trades and manufactures, geography, topography, agriculture, "and all philosophical experiments that let light into the nature of things, tend to increase the power of man over matter, and multiply the conveniences and pleasures of life." Upon its going into operation Dr. Franklin himself acted as secretary.

In the life of Dr. Cadwallader Colden, given in Rees' Encyclopædia, it is stated, in a letter to a friend, that Dr. Franklin acknowledges that the idea of founding a Philosophical Society was suggested to him by Dr. Colden, and this has been repeated in every account of the life and of the labors of that distinguished physician in the cause of science and general knowledge. The name of the individual to whom this communication was made is not mentioned. From the following letter it is very clear that Dr. Colden must have been deeply interested in the success of the Society, or Franklin would not have been so explicit in his exposition of its prospects.

NEW YORK, April 5th, 1744.

SIR: Happening to be in this city about some particular Affairs, I have the pleasure of receiving yours of the 28th past, here. And can now acquaint you that the Society, as far as relates to Philadelphia, is actually formed, and has had several Meetings to mutual Satisfaction. As soon as I get home I shall send you a short account of what has been done and proposed at those Meetings. The members are—

Dr. THOMAS BOND, as Physician.
Mr. JOHN BARTRAM, as Botanist.
Mr. THOMAS GODFREY, as Mathematician.
Mr. WILLIAM PARSONS, as Geographer.
Mr. SAMUEL RHODES, as Mechanician.
Dr. PHINEAS BOND, as Gen. Nat. Philosopher.
Mr. THOMAS HOPKINSON, President.
Mr. WILLIAM COLEMAN, Treasurer.
B. F., Secret.

To whom the following Members have since been added, viz: Mr. Alexander, of New York, Mr. Morris (Ch. Justice of the Jerseys), Mr. Horne, Secretary of do., Mr. Jno. Coxe, of

Trenton, and Mr. Martyn, of the same place. Mr. Nicholls tells me of several other gentlemen of this city that incline to encourage the thing. And there are a Number of others in Virginia, Maryland, Carolina, and the New England Colonies who we expect to join us as soon as they are acquainted that the Society has begun to form itself.

I am, sir, with much Respect,
your most humble Servant,
B. FRANKLIN.

The Hon. Cadwallader Colden, Esq.

It will thus be seen that in the organization of the Philosophical Society our profession occupied a prominent place. The subjects of inquiry pertaining to it stood at the head of the list, and of the nine original founders two were medical men.

Another society came into existence about the year 1750, which in a considerable measure took precedence of its elder sister. This association had its origin very much in the same way as the first, and was likewise, in its infancy, called the Junto. In April, 1766, it assumed the name, and went into operation as the "American Society for Promoting and Propagating Useful Knowledge." It was likewise supported by the medical men of the day, and the names of Morgan, Evans, Cadwalader, Bard, Redman, Kuhn, Moore, Graeme, and Shippen may be enumerated as contributing to give weight and dignity to its proceedings.[1]

In the year 1768, greater activity was infused into the "American Society;" large additions were made to the list of fellows and correspondents, and among them were Dr. Franklin himself, then in England, and other men of great distinction. "The proceedings were no longer those of a debating club, but of a learned Society." At the same time the Philosophical Society appears to have acquired additional vitality, as it were, from emulation infused into it by the activity of its younger sister. Nevertheless, "the necessity for the existence of two societies devoted to the same extended field of research and inquiry did not exist, and it is an evi-

[1] Minutes of the American Society.

dence of the good sense and kindly feeling of both parties interested that the proposition of union prevailed when the proper influence was brought to bear upon them."[1] From the minutes of the American Society, January 28th, 1768, it appears that the overture came from the younger association, and in the negotiation that ensued the medical members were influential in securing the result, as the following letter from Dr. Bond to Dr. John Morgan will show:—

DEAR SIR: I have considered the proposals you made me yesterday of our taking some further steps towards your uniting with us in a Philosophical Society, and as it was always my desire, and I think may yet be readily effected, I should be pleased to confer with you about it, and will do everything in my power to cultivate that harmony which should subsist among the lovers of science.

I will confer with such of our members as I can meet with this morning, and I shall be glad to meet you, with such of your members as you think proper, at my house, or any other place, at half-after twelve o'clock this day, that no time may be lost. I am, yours respectfully,

THO. BOND.

January 28th, 1768.

At the end of the year (December 30th, 1768), the two societies were united under a title which was derived from both, "The American Philosophical Society for Promoting Useful Knowledge."

Throughout the entire subsequent career of the Philosophical Society the medical profession has had its full share of honor in the bestowal of offices upon its members. This distinction has been fully earned by the deep interest taken by them in its welfare, and by their contributing to its transactions scientific investigations and papers which have promoted its reputation. Of the thirteen presidents elected by ballot five have been medical men.[2]

[1] Discourse of Dr. Patterson.

[2] The names of the physicians elected to the Presidency of the Society are, Caspar Wistar, M. D., Nathaniel Chapman, M. D., Robert Patterson, M. D., Franklin Bache, M. D., and George B. Wood, M. D.

In the "Transactions of the American Philosophical Society," printed in 1769, which contain the joint contributions of the two societies for the previous year, of twenty papers upon various interesting subjects eight pertain to medical science.[1]

The subsequent volumes contain many important and interesting medical communications, as well as others upon general science from members of the medical profession.

The other institution to which we must now allude, as filling a large space in the affections of the public, and quite as much dependent for its successful operation upon the medical profession as upon legislative or private aid, and whose annals in connection with the medical administration are blended with those of the University, is the Pennsylvania Hospital. It is not necessary to detail minutely the circumstances under which this noble charity sprung into existence. A professor of the University has accomplished the task of writing its history, and it may be said of this, as of all his literary labors, "nihil tetiget quod non ornavit."[2] The fact on which we desire to dwell is that the instigation to meet the requirements of the sick and wounded indigent citizens of the increasing colony emanated from its most natural source, the medical profession, in the person of Thomas Bond, who, although most ably seconded by the suggestive mind of Benjamin Franklin, may be regarded, without disparagement to the benevolence and efficiency of the great philosopher, as the originator of the undertaking.

The physicians of the hospital first appointed were Lloyd Zachary, Thomas and Phineas Bond. To these were soon added Thomas Graeme, Thomas Cadwalader, Samuel Preston

[1] The small volume of Transactions to which reference is here made was the first published by the Society. It is of the small octavo size. A copy is not in the possession of the Society, whose first series of Transactions is a reprint in quarto form, not following the order of the original. We met with this original publication in the Philadelphia Library in connection with the "Pennsylvania Magazine" for 1769, edited by Lewis Nichola, and bound with it. The number in the catalogue is 1504 O. Apparently this early volume of Transactions had been lost sight of and forgotten.

[2] An address on the occasion of the Centennial Celebration of the Founding of the Pennsylvania Hospital, delivered June 10, 1851, by George B. Wood, M. D., published by the Board of Managers.

Moore, and John Redman. It is worthy of notice that at the time of the incorporation of this charitable institution, when, on an appeal for assistance being made to the Provincial Assembly, one of the objections offered to the measure was that the cost of medical attendance would alone be sufficient to consume all the money that could be raised, it was met by the offer on the part of Drs. Zachary and the Bonds to attend the patients gratuitously for three years. This became the settled understanding with the Board of Physicians and Surgeons; nor have we learned that the compact has ever been annulled or abrogated during the period of one hundred and seventeen years (from 1751 to the present date), an instance of disinterested philanthropy which has been generally followed in the charitable institutions depending on medical attendance, not only of this city, but throughout the length and breadth of the land.[1]

In this institution was the first clinical instruction given by Dr. Thomas Bond in connection with the collegiate course, and it may be stated, so close has been the association between the hospital and the medical school, that of the twenty-nine professors, who have occupied collegiate chairs, eighteen have been attending physicians or surgeons of the hospital, and five of the seven medical men first elected to these positions in the hospital were trustees of the college.

The foundation of the medical library of the hospital dates as far back as 1763. The first medical book possessed by it appears to have been a gift from that warm friend and generous benefactor of the institution, Dr. John Fothergill. It was the *Materia Medica of Dr. William Lewis, London*, 1761. "When the managers resolved to demand a fee for the privilege of attending the wards of the hospital, and consulted with the physicians in regard to the destination of the sum raised, these gentlemen, Thomas Bond, Phineas Bond, Cadwalader Evans, and Thomas Cadwalader, although having claims upon such gratuities, according to the custom of the

[1] In his "Travels in the United States" in 1788, this fact was thought by Brissot de Warville of sufficient importance to be particularly noted and published.

British hospitals, full of scientific zeal, proposed to apply the money to the foundation of a medical library for the advantage of the pupils of the institution."[1] In 1767, Hugh Roberts and Samuel Neave presented as executors of Dr. Zachary, forty-three volumes from his library. The Library of the Pennsylvania Hospital contains by donation and purchase between ten and eleven thousand volumes.

[1] Preface to Catalogue of the Medical Library of the Pennsylvania Hospital, by Emil Fischer, M. D.

## CHAPTER III.

Commencement of medical teaching in America—Dr. Cadwalader's lectures on anatomy in Philadelphia—Dr. Hunter's lectures at Newport—Dr. Shippen, Jr., opens an anatomical school—Dr. Fothergill's contributions for teaching anatomy—Dr. John Morgan, his education and early labors—Dr. Shippen's education and studies—Dr. Morgan submits his plan of a medical school to the trustees of the college.

It has been stated that the medical men who first settled in the Province of Pennsylvania came with their countrymen from Europe, and that into their offices or shops apprentices were received, to be trained in a knowledge of the healing art. It was well understood, however, that the highest grade of medical acquirement could not be derived from the resources alone of private practitioners, no matter how well informed they might be, or versed in the every-day application of science to the demands that were made upon their skill; and hence the resort, on the part of the rising generation, to prominent seats of instruction abroad.

The return of these youthful travelled aspirants was hailed with pleasure by their friends and fellow-citizens. The acquirements additionally gained by them from a visit to Europe afforded promise of a life of usefulness and distinction. They were believed to be conversant with the latest discoveries and improvements, and the exponents of the progressive attainment of the age. To their preceptors they returned with interest the debt of gratitude for early instruction, becoming in turn the teachers whose field of enterprise and labor lay in diffusing the results of their studies and inquiries. In exemplification it may be stated, that Dr. Cadwalader, who had studied anatomy in London under the guidance of the celebrated Cheselden, gave demonstrations to the physicians of Philadelphia, when he settled himself among them. It is interesting to know, that the place of delivery of these lectures was

in Second Street above Walnut, on the back part of the lot which faces Dock Street. The Bank of Pennsylvania subsequently occupied the site. With respect to these lectures, Dr. Wistar remarks: "I suppose that the anatomy of that day, as well as of the present, enjoyed the honorable protection of literature, and that the dissections were made under the auspices of the most profound scholar of Pennsylvania, the President, James Logan, founder of the Loganian Library." "This probably was the first business of the kind ever done in Philadelphia."[1]

Credit is likewise to be awarded to Dr. William Hunter, of Newport, Rhode Island, a native of Scotland, and a relative of the celebrated Hunters, who, upon settling in America, gave lectures upon anatomy in 1754, '55, '56. As Dr. Cadwalader had been established in Philadelphia some time before the year 1751, at which date he was appointed one of the physi cians of the hospital, and gave his lectures upon his return from Europe, the probability is in favor of his having first entered upon this branch of teaching.

Dr. William Shippen, Jr., the son of Dr. Shippen already mentioned, who had recently returned from Europe, commenced a course of anatomy in 1762. In the "Pennsylvania Gazette," November 25, 1762, is the following announcement: "Dr. Shippen's Anatomical Lectures will begin to-morrow evening, at six o'clock, at his father's house in Fourth Street. Tickets for the course to be had of the Doctor, at five Pistoles each, and any gentlemen who incline to see the subject prepared for the lectures and learn the art of Dissecting, Injections, &c., are to pay five Pistoles more."

The Introductory to this course of lectures was delivered in one of the large apartments of the State House, and many of the gentlemen of Philadelphia heard it with pleasure. The number of students who attended his lectures was twelve. Dr. Wistar, in his Eulogium upon Dr. Shippen, after the preceding statement, adds, "Such was the origin of our medical school." Three courses of this private character were delivered.

[1] Wistar's Eulogy upon Dr. Shippen, Jr.

Dr. John Fothergill appears uniformly to have evinced an interest in Pennsylvania, at first in relation to medical affairs, and subsequently in a more extended way by his anxiety to avert the calamity of war between the colonies and the mother country.[1] He was of the same religious persuasion as William Penn, and hence his concern for the welfare and prosperity of the Province. Dr. Wistar tells us "that the people of Pennsylvania seem always to have been regarded with affection by this gentleman, but at the present period he was more interested in them than usual. The Pennsylvania Hospital had lately been erected; he took it for granted that students would resort to it, and supposed that they would experience great difficulty in acquiring a knowledge of anatomy. To remedy this defect in the medical education of Pennsylvania, he employed Rimsdyck, one of the first artists of Great Britain, to execute the crayon paintings, now at our Hospital, which exhibit the whole structure of the body, at two-thirds the natural size, and the gravid uterus, with many of the varied cirumstances of natural or preternatural parturition, of full size. Jentry, an anatomist of London, is said to have made the dissections from which these paintings were made, and Dr. William Hunter sometimes examined the work. They are supposed to have cost two hundred guineas, which, in addition to one hundred and fifty guineas which he contributed to the institution, constitute a most substantial proof of his regard as well as of his liberality."

The account of the arrival and reception by the Hospital of the donation of Dr. Fothergill is given in the Minutes of the Board of Managers, to wit—"At a Meeting of the Managers and Treasurer, in the Warden's Room at the Court House, Philada., the 8th, 11 month (Nov.), 1762.

"The Board being called at the request of Dr. William Shippen, Jr., lately arrived from London, he attended and informed the Board that per the Caroline, Capt. Friend, are

[1] Life of Dr. Fothergill by John Coakley Lettsom, M. D., see the "Works of Dr. Fothergill," London, vol. 3d, 1784, Oct., also in Quarto ed. The account of Dr. Fothergill's association with Dr. Franklin is most interesting, in an effort to prevent the American war. His political papers on this subject are worthy of perusal.

arrived from Dr. John Fothergill seven cases, which contain a parcel of Anatomical drawings, which the Dr. informed him, when in London, he intended as a present to the Pennsylvania Hospital, but that he has not received any letter or invoice of them, nor any further directions but what the Doctor verbally gave him, and that he concludes his constant engagements prevented his writing per the ship. But by a letter from him to James Pemberton, dated 4th mo. (April) last, he therein signifies in general his intentions of sending this Present to the Hospital, and the uses he proposes thereby. Of it the following is an abstract:—

"I distributed the books thou wast pleased to send me as desired, but they came perhaps at an unlucky juncture. Money is much wanted here for numerous purposes, and men part with fifty pounds with reluctance, when they know that a little more would purchase them a hundred; the Hospital, however, must subsist itself as well as possible till better times. I propose to send, by Dr. Shippen, a present to it of some intrinsic value, tho' not probably of immediate benefit. I need not tell thee that the knowledge of Anatomy is of exceeding great use to practitioners in Physic and Surgery, and that the means of procuring subjects with you are not easy; some pretty accurate anatomical drawings, about half as big as the life, have fallen into my hands, which I propose to send to your Hospital to be under the care of the Physicians, and to be by some of them explained to the students and pupils who may attend the Hospital. In the want of real subjects these will have their use, and I have recommended it to Dr. Shippen to give a Course of Anatomical Lectures to such as may attend. He is very well qualified for the subject, and will soon be *followed by an able assistant, Dr. Morgan, both of whom, I apprehend, will not only be useful to the Province in their employments, but if suitably countenanced by the Legislature, will be able to erect a School of Physic amongst you*, that may draw students from various parts of America and the West Indies, and at least furnish them with a better idea of the rudiments of their Profession, than they have at present the means of acquiring on your side of the water.

"Should the Managers of the Hospital think proper, I could

wish that, if the drawings and casts I shall send per the next convoy come safe, they might be lodged in some low apartment of the Hospital, not to be seen by every person, but with the permission of a Trustee, or for some small gratuity for the benefit of the House."

The Minutes, moreover, express: "And Dr. Shippen proposing to exhibit a Course of Lectures on Anatomy this winter, requested he might have recourse to the said drawings and casts; and the Managers being desirous of countenancing him in his undertaking agree he may have the use of them, in such manner and place, as after consulting with the physicians may be thought most convenient, and not prejudicial to the drawings, as they require to be handled with the greatest delicacy and care; and after consulting with the Physicians, who, on notice being sent them, attended on the occasion, viz., Thomas Bond, Phineas Bond, William Shippen, Jr., John Redman, and Cadwalader Evans, to whom the proposal of Dr. Shippen, Jr. of his exhibiting a Course of Lectures, &c., being communicated, they unanimously expressed their approbation thereof, and it was concluded that the several cases should be conveyed to the Hospital and that the physicians and managers will attend at 3 o'clock P. M. to view the contents."

With reference to these drawings, &c., the subjoined notice will be found in the "Pennsylvania Gazette," May, 1763: "The generous donation of Dr. Fothergill, of London, to the Pennsylvania Hospital of a set of anatomical paintings and casts in plaster of Paris, representing different views of the several parts of the human body, being now deposited in a convenient chamber of the Hospital, and as there may be many persons besides students of Physic desirous to gain some general knowledge of the structure of the human body, Dr. William Shippen, Jr., proposes to attend there on the seventh day of the week, the 21st inst., at 5 o'clock P. M., and once a fortnight during the summer season, on the same day of the week and same hour, to explain and demonstrate them to such persons who are willing to give a dollar each for the benefit of the Hospital." At a subsequent period the drawings were deposited in the Museum of the University, where they re-

mained until 1866, when they were retransferred to the Hospital to be placed in its Pathological Museum.

The lectures upon Anatomy by Dr. William Shippen, Jr., were thus in full operation when, in 1765, Dr. Morgan arrived from Europe. As he and Dr. Shippen, Jr., must be regarded as the fathers of systematic medical teaching in this country, it will be proper to give an account of their previous training and qualifications to assume so important a duty.

Dr. JOHN MORGAN was born in Philadelphia, in 1736, and acquired his literary education at the college of this city, from which he received the degree of A. B. in 1757, with the first class which was graduated. He studied medicine with Dr. Redman, and upon the expiration of his indentures entered the Provincial army as a surgeon. This was at the conclusion of the French war, which terminated by the expulsion of that nation from Canada. In 1760, having resigned his commission in the army, he sailed for Europe with the view of perfecting his medical knowledge.

When speaking of himself with reference to this period, he states: "It is now more than fifteen years since I began the study of medicine in this city, which I have prosecuted ever since without interruption. During the first years I served an apprenticeship with Dr. Redman, who then did, and still continues to enjoy a most justly acquired reputation in this city for superior knowledge and extensive practice in physic. At the same time I had an opportunity of being acquainted with the practice of other eminent physicians in this place, particularly of all the physicians to the hospital, whose prescriptions I put up there above the space of one year. The term of my apprenticeship being expired, I devoted myself for four years to a military life, principally with a view to become more skilful in my profession, being engaged the whole of that time in a very extensive practice in the army amongst diseases of every kind. The last five years I have spent in Europe, under the most celebrated masters in every branch of medicine, and spared no labor or expense to store my mind with an extensive acquaintance in every science that related in any way to the duty of a physician; having in that time expended in this pursuit a sum of money of which the very in-

terest would prove no contemptible income. With what success this has been done, others are to judge, and not myself."[1]

During Dr. Morgan's residence in London he experienced the benefit of the instruction of the Hunters and of Hewson. With the latter, as appears from his correspondence, he was on intimate terms. He graduated as M. D. at Edinburgh in 1763, his thesis being written upon the formation of pus. It is entitled "Πυοποιεσις, sive Tentamen Medicum de Puris Confectione." This thesis, when published, was dedicated to the Medical Society of Edinburgh, in the following terms: "Societati Medicinæ Studiosorum in Academia Edinburgena dudum institutæ."

In this essay the doctrine is maintained that pus is a secretion from the vessels, and in this he anticipated Mr. Hunter. Dr. James Curry, Lecturer at Guy's Hospital, gives the credit of priority in this statement to him, and says: "I could not avoid giving that merit to Dr. Morgan, who discussed the question with great ingenuity in his Inaugural Dissertation on taking his degree at Edinburgh in 1763; whilst I could find no proof that Mr. Hunter had taught or even adopted such an opinion until a considerably later period."[2]

While in England Dr. Morgan became a proficient in the art of injecting organs with wax, and preparing them by subsequent corrosion.[3] Carrying with him to the continent the evidences of his skill, he acquired such a reputation as to procure his admission as a member to the Academy of Surgery of Paris. While there residing, and attending the lectures of the distinguished anatomist M. Sue, he prepared a kidney by

[1] Preface to the Discourse, etc.

[2] London Medical and Physical Journal, 1817. New England Journal of Medicine and Surgery, vol. vi. p. 404. Beck's Historical Sketch.

[3] The method of making preparations by this process was communicated to the American Philosophical Society. It is published in the second volume of Transactions, and is entitled the "Art of making Anatomical Preparations by Corrosion, by John Morgan, M. D., Professor of the Theory and Practice of Physic in the University of Pennsylvania, Member of the Royal College of Physicians, Ed., F. R. S., London." It must have been communicated some years prior to 1786, when the volume was printed. Dr. Morgan was an active member of the American Society, which he joined in 1766, and became a member of the Philosophical Society on its union with the former in 1768.

this process, which led to the distinction specified. Besides this honor, he was elected a member of the Royal Society of London, admitted as a Licentiate of the College of Physicians of London, and as a member of the College of Physicians of Edinburgh. He was also admitted to membership of the Society of Belles Lettres of Rome.

When in Italy Dr. Morgan visited Morgagni, at Padua. Dr. Rush says, in his notice of Morgan, that "this venerable physician, who was the light and ornament of two or three successive generations of physicians, was so pleased with the doctor that he claimed kindred with him from the resemblance of their names, and on the blank leaf of a copy of his works, which he presented to him, he inscribed with his own hand the following words: Affini suo, medico præclarissimo Johanni Morgan, donat auctor." These volumes were placed by Dr. Morgan in the library of the College of Physicians of Philadelphia.

Dr. Morgan, while in Europe, appears to have constantly revolved in his mind the course he would pursue. In writing from London, November 10th, 1764, to Dr. Cullen, he remarks: "I am now preparing for America, to see whether, after fourteen years' devotion to medicine, I can get my living without turning apothecary or practitioner of surgery. My scheme of instituting lectures you will hereafter know more of. It is not prudent to broach designs prematurely, and mine are not yet fully ripe for execution."[1]

It has been shown that the practice of medicine in the Colonies embraced every branch of the profession, including pharmacy. This arose from the necessity of the case, and the difficulty of division of labor in a restricted community.

The plan pursued in Europe of a separation of practice into several departments was regarded as inexpedient, and had not been adopted. When Dr. Morgan returned from Europe, he determined to take a different course from that in operation, and was the first physician who restricted himself to simply prescribing for the sick.[2] In the Preface to his Discourse he

[1] Thompson's Life of Cullen, vol. i.

[2] Prior to 1754, the profession of medicine in Edinburgh was not exclusive. In that year the College of Physicians passed an act prohibiting

published his views with respect to the mode of practice which he thought should be pursued by the physician, enforcing them with arguments derived from the advantages which he believed would be secured by such procedure.

Having been appointed professor in the college, there was another reason, having reference to this position, which must be admitted as valid. It is thus given: "As far as I can learn everybody approves of my plan for instituting medical schools, and I have the honor of being appointed a public professor for teaching physic in the college here. Can any man, the least acquainted with the nature of that arduous task, once imagine it possible for me to acquit myself in that station in an honorable or useful manner, and yet be engaged in one continued round of practice in surgery and pharmacy as well as physic?"

"To prepare for a course of lectures every year requires some leisure, and a mind undisturbed with too great variety of pursuits. So that my usefulness as a professor makes it absolutely necessary for me to follow that method of practice which alone appears to be calculated to answer that end."[1]

Although the opinions of Dr. Morgan were not at the time adopted, nor was his example immediately followed, still, in connection with the history of the profession they are important, from the fact that he was the first practitioner in the city of Philadelphia who placed himself upon the highest ground, by separating himself from the handicraft which requires distinct skill, and so long a training, as to constitute in itself an occupation. He insisted upon the distinction being made

their Fellows and Licentiates from taking upon themselves to use the employment of an apothecary, or to have or keep an apothecary shop. In 1765, in order, as they conceived, "to support that character and esteem which they had all along maintained, and to keep up that distinction which ought to be made between the members of the College and the practitioners of those branches of the healing art which have always been esteemed the least reputable," they resolved "that for the future they would admit no person to be one of their Fellows whose common business it was either to practise Surgery in general, or Midwifery, Lithotomy, Inoculation, or any other branch of it in particular."—Life of Cullen, vol. ii. p. 87, by Dr. Craigie. A continuation of Thompson's Life.

[1] Preface to his Discourse.

between medicine proper and pharmacy, which ultimately became a recognized necessity, affording relief to the physician, while, by improving pharmacy, he was provided with greater resources for the application of his skill. The course pursued by Dr. Morgan may be said to have given the original impulse to the cultivation of the profession of pharmacy, and sanctioned its independent existence.[1]

Dr. William Shippen, Jr., was born in Philadelphia in 1736, and received his elementary training from the Rev. Dr. Finlay, of Nottingham, in Maryland. He entered the College of New Jersey, then established at Newark under the direction of President Burr. He graduated in 1754, and, being distinguished for oratorical talent, was advised by Whitfield to devote himself to the clerical profession. He entered the office of his father, Dr. William Shippen, Sen., a respectable practitioner of Philadelphia, and a public-spirited citizen, by whom he is said to have been trained with reference to his future course as a lecturer. "The old gentleman must have been made sensible by his own personal experience of the value of an European medical education," and his son was sent to Europe in the year 1757, soon after he was twenty-one years of age.[2]

In London he studied Anatomy with and resided in the family of Mr. John Hunter, but was also associated with Dr. William Hunter and Mr. Hewson.[3] While in the British Metropolis, in addition to Anatomy and Surgery, he devoted a share of attention to the rising department of Obstetrics,

[1] There was an independence of thought and action in the character of Dr. Morgan. In further illustration, it is worthy of record that he was one of the first to use a silk umbrella, to the wonderment of the citizens.

[2] Wistar's Eulogium.

[3] From the Life of Mr. Hewson it will be seen that in the autumn of 1759 that gentleman came to London, lived with Mr. John Hunter, and attended Dr. William Hunter's Anatomical Lectures at a house in Covent Garden. Hewson's diligence and skill soon recommended him to the favorable notice of the brothers, and when Mr. John Hunter went abroad with the army in 1761, he left to Mr. Hewson the charge of instructing the other pupils in the dissecting-room.—"*Works of William Hewson, F. R. S., edited by George Gulliver, F. R. S.*" It was through this Association that Dr. Shippen became intimately acquainted with Mr. Hewson. In 1762 Mr. Hewson was in attendance upon the Lectures at Edinburgh.

attending in the summer season the lectures of a celebrated accoucheur, Dr. McKenzie, which were delivered near St. Thomas's Hospital. As he removed to this neighborhood, we may suppose it was in consequence of the practical advantages afforded by proximity to the poor, as Dr. William Hunter was then at the height of his reputation as a teacher and practitioner of Midwifery.[1] He next proceeded to Edinburgh, where he graduated in the spring of 1761. His thesis was entitled "*De Placentæ cum utero nexu.*" This production evinces a continued interest in obstetrical studies. He afterwards travelled in France, where he formed an intimate acquaintance with Senac and other physicians of Paris.

Dr. Shippen, as has been stated, went to Europe in 1757, where he remained until 1762, while Dr. Morgan arrived there in 1760, and returned to this country in 1765. They were therefore together between one and two years in Europe. As these two zealous and enthusiastic young men, natives of the same city and imbued with the same aspirations, were treading abroad the same ground of preparation for their calling, it is natural to conceive that they should have possessed similar sentiments with respect to the urgent wants of their common country—that they should have conferred with those interested in the subject, and that the scheme of establishing, on this side of the Atlantic, systematic medical education, which was subsequently put into operation, was there entertained by both of them. In support of this opinion, Dr. Rush may be quoted, who, in his account of Dr. John Morgan, states "that it was during his absence from home that he concerted with Dr. Shippen the plan of establishing a Medical School in this city," meaning Philadelphia.[2] From the testimony hereafter presented it is clear that Dr. Rush was perfectly conversant with all the transactions connected with the origin of the medical school. Dr. Shippen paved the

[1] In August, 1762, Dr. Hunter was the professional attendant upon the Queen of England in her confinement.

[2] An Account of the late Dr. John Morgan. Delivered before the Trustees and Students of Medicine in the College of Philadelphia on the 28th of November, 1789, by Benjamin Rush, M. D.

way for the enterprise, by the course which has been detailed, on his arrival in Philadelphia.

Dr. Morgan, at the time of his return from Europe, was freighted with great intents and exalted purposes. His views had been kept no secret, he had enlisted in behalf of his projects the Hon. Thomas Penn, a patron of the College of Philadelphia, and laying before the Board of Trustees of the College "a plan for establishing a medical school under their auspices," he presented to them a letter from that gentleman recommending it to their patronage. This letter was read at a meeting of the Board of Trustees, May 3d, 1765, as follows:—

"GENTLEMEN: Dr. Morgan has laid before me a proposal for introducing new professorships into the Academy for the instruction of all such as shall incline to go into the study and practice of Physic and Surgery, as well as the several occupations attending upon these useful and necessary arts. He thinks his scheme, if patronized by the Trustees, will at present give reputation and strength to the Institution, and though it may for some time occasion a small expense, yet after a little while it will gradually support itself, and even make considerable additions to the Academy's funds.

"Dr. Morgan has employed his time in an assiduous search after knowledge in all the branches necessary for the practice of his profession, and has gained such an esteem and love from persons of the first rank in it, that as they very much approve his system, they will from time to time, as he assures us, give him their countenance and assistance in the execution of it.

"We are made acquainted with what is proposed to be taught, and how the lectures may be adopted by you, and since the like systems have brought much advantage to every place where they have been received; and such learned and eminent men speak favorably of the doctor's plan, I could not but in the most kind manner recommend Dr. Morgan to you, and desire that he may be well received, and what he has to offer be taken with all becoming respect and expedition into your most serious consideration, and if it shall be thought neces-

sary to go into it, and thereupon to open Professorships, that he may be taken into your service.

"When you have heard him, and duly considered what he has to lay before you, you will be best able to judge in what manner you can serve the public, the Institution, and the particular design now recommended to you.

"I am, Gentlemen, your very affectionate friend,

THOMAS PENN.

"London, February 15th, 1765."

In addition to this letter Dr. Morgan presented others he had received from Mr. Hamilton and Richard Peters, former members of the Board, but then residing in England. His scheme was also approved by Dr. Fothergill, Dr. Hunter, Dr. Watson, and Dr. Cullen, "men distinguished for their superior knowledge in literature, and particularly eminent in everything which relates to medical science."[1]

[1] Morgan's Discourse.

## CHAPTER IV.

Foundation of the College of Philadelphia—Application of Dr. Morgan—His appointment to the professorship of theory and practice of physic—His public discourse—Dr. Shippen appointed Professor of Anatomy and Surgery—Organization of the medical department—Dr. Bond delivers clinical lectures in the Pennsylvania Hospital—Rules for the government of the medical department of the College—Dr. Wm. Smith's lectures on natural and experimental philosophy.

THE College of Philadelphia was founded in 1749, sixteen years before the medical school was engrafted upon it. This institution was intended to meet the demands of the population for education of a more extended nature than was afforded by the private schools in existence. As liberal pursuits engaged the attention of a greater number of individuals in the Province, and as preparation for the professions, as well as a diffusion of knowledge in arts and letters, became necessary, the importance of employing all the facilities at command was made apparent. "Franklin drew up the plan of an Academy to be erected in the city of Philadelphia, suited to the state of an infant country; but in this, as in all his plans, he confined not his views to the present time only. He looked forward to the period when an institution on an enlarged plan would become necessary. With this view he considered his academy as a foundation for posterity to erect a seminary of learning more extensive and suitable for future circumstances."[1] Dr. Franklin, himself, was no classically educated scholar, but one of nature's own perfecting, who probably derived his inspiration from his native Province, Massachusetts.

[1] Life of Benjamin Franklin, by himself, and continued by Dr. Henry Stuber, New York, 1825, p. 99. The college obtained a charter from the proprietaries, Thomas and Richard Penn, in 1753. This was amended and enlarged in 1755. In organizing the college, credit is awarded to Dr. Phineas Bond, Thomas Hopkinson, Tench Francis, and Rev. Richard Peters.

The gentlemen who were called upon to give their aid and counsel to this enterprise were among the most respectable in the community.[1] Five prominent physicians were members of the Board of Trustees in 1765, viz: Thomas Bond, Phineas Bond, Thomas Cadwalader, William Shippen, Sen., and John Redman. To such an organization was the proposal of Dr. Morgan submitted.[2]

Upon examining the records of the College and of the University, it will be found that for more than half a century medical men were admitted to participate in their government. No jealousy or suspicion appears to have been entertained towards them, and certainly it may be affirmed that medical men have as deep a stake in the prosperity of the schools as the representatives of other professions or occupations. Although the custom of electing members of the medical profession was for a time suspended, the return to it may be regarded as a happy omen, and the present honorable body may be congratulated upon the accession to its deliberations of such discreet and proper members as the medical gentlemen who now constitute a portion of its number.[3]

The impression which the arguments in his communication and his earnestness made upon the Board of Trustees, sustained by the letters from abroad which were submitted, prevailed with them to accede to Dr. Morgan's propositions. The Trustees approved the scheme, and, as the minutes express it, "entertaining a high sense of Dr. Morgan's abilities and the high honors paid to him by different learned bodies and societies in Europe, they unanimously elected him Professor of the Theory and Practice of Physic." The first medical professorship in America was thus created. The date of this event is May 3d, 1765.

[1] The Board has consisted since its commencement of twenty-four members.

[2] The history of the College of Philadelphia and of the University of Pennsylvania has been written by Dr. George B. Wood. It was published in vol. iii. Memoirs of the Historical Society of Pennsylvania. In addition to the trustees mentioned, Dr. Lloyd Zachary had been in the Board in 1749.

[3] The present (1868) medical gentlemen in the Board of Trustees are Drs. Rene La Roche, George W. Norris, and George B. Wood.

At the public Commencement of the College, which took place on the 30th and 31st of May following, Dr. Morgan delivered his famous Inaugural Address, entitled "A DISCOURSE UPON THE INSTITUTION OF MEDICAL SCHOOLS IN AMERICA." It had been prepared in Paris. This discourse constituted a part of the Commencement exercises on both days of their continuance.

In noticing this performance, the "Pennsylvania Gazette" thus comments upon it: "We would not wish to anticipate the judgment of the public, and shall only say that the perspicuity with which it was written and spoke drew the close attention of the audience, particularly of the gentlemen of the Faculty of Physic."

In this address will be found an exposition of the nature and scope of medical science; a sketch of the departments of which it is composed, with the reasons for their special cultivation; an advocacy of classical, literary, and general scientific attainments on the part of the student of medicine, and, what is pertinent to the purpose, the demonstration that to be effectively taught "a coalition is required of able men, who would undertake to give complete and regular courses of lectures on the different branches of medicine." In connection with his statements, the author insists especially upon the advantages presented by the city of Philadelphia, to which even then students resorted, attracted as well by the reputation of its practitioners, as by the facilities for clinical instruction afforded them in the hospital.

In this literary and scientific performance, a prognostication was uttered which has been fully realized, viz: "Perhaps this Medical Institution, the first of its kind in America, though small in its beginning, may receive a constant increase of strength and annually exert new vigor. It may collect a number of young persons of more than ordinary abilities, and so improve their knowledge as to spread its reputation to distant parts. By sending these abroad duly qualified, or by exciting an emulation amongst men of parts and literature, it may give birth to other useful institutions of a similar nature, or occasional rise, by its example, to numerous societies

of different kinds calculated to spread the light of knowledge through the whole American continent wherever inhabited."[1]

It is worthy of note that at the time this was uttered the population of the city of Philadelphia was about twenty-five thousand, and of the colonies in the aggregate less than three millions.[2]

In September following the appointment of Dr. Morgan, Dr. Shippen was, on application to the Board, unanimously elected the Professor of Anatomy and Surgery.[3] The application for this position was thus expressed:—

"To the Trustees of the College, etc.:

"The institution of Medical Schools in this country has been a favorite object of my attention for seven years past, and it is three years since I proposed the expediency and practicability of teaching medicine in all its branches in this city in a public oration read at the State House, introductory to my first course of Anatomy.

"I should long since have sought the patronage of the Trustees of the College, but waited to be joined by Dr. Morgan, to whom I first communicated my plan in England, and who promised to unite with me in every scheme we might think necessary for the execution of so important a point. I

[1] A Discourse upon the Institution of Medical Schools in America, delivered at a Public Anniversary Commencement, held in the College of Philadelphia, May 30 and 31, 1765, with a Preface, containing, amongst other things, the Author's Apology for Introducing the Regular Mode of Practising Physic in Philadelphia. By JOHN MORGAN, M. D., &c., and Professor of the Theory and Practice of Medicine in the College of Philadelphia. Printed and sold by William Bradford: 1765. A review of this Discourse will be found in the North American Medical and Surgical Journal, vol. iv. p. 362, written by Prof. Charles D. Meigs, M. D.

[2] In his work upon Yellow Fever, Dr. La Roche has given the data from which this conclusion is drawn. Mr. Thomas Smedley makes the same statement. The population of the city of Philadelphia, in 1760, was 18,756; and in 1769 it was 28,042. The rate of increase was then about one thousand annually.—*A Complete Atlas of the City of Philadelphia*, 1862.

[3] At a meeting (special) of the Board of Trustees, held September 23d, 1765, the following minute was made: "Dr. William Shippen, Jr., applied by letter as follows," &c.

am pleased, however, to hear that you, gentlemen, on being applied to by Dr. Morgan, have appointed that gentleman Professor of Medicine. A Professorship of Anatomy and Surgery will be accepted by, gent.,

"Your most obedient and very humble servant,

WILLIAM SHIPPEN, JR.

"Philadelphia, 17th September, 1765."

The reputation of Dr. Shippen as a private teacher had directed attention to him, and secured his election as particularly qualified for the post. During his active career of over thirty years he well sustained the prestige he had previously acquired.

The Medical School of the College of Philadelphia having been founded by the action of the Board of Trustees that has been detailed, the announcement was given to the public in the "Pennsylvania Gazette," September 26, 1765, as follows:—

"As the necessity of cultivating medical knowledge in America is allowed by all, it is with pleasure we inform the public that a Course of Lectures on two of the most important branches of that useful science, viz., Anatomy and Materia Medica, will be delivered this winter in Philadelphia. We have great reason, therefore, to hope that gentlemen of the Faculty will encourage the design by recommending it to their pupils, that pupils themselves will be glad of such an opportunity of improvement, and that the public will think it an object worthy their attention and patronage.

"In order to render these courses the more extensively useful, we intend to introduce into them as much of the Theory and Practice of Physic, of Pharmacy, Chemistry, and Surgery as can be conveniently admitted.

"From all this, together with an attendance on the practice of the physicians and surgeons of the Pennsylvania Hospital, the students will be able to prosecute their studies with such advantage as will qualify them to practise hereafter with more satisfaction to themselves and benefit to the community.

"The particular advertisements inserted below specify the time when these lectures are to commence, and contain the

various subjects to be treated of in each course, and the terms on which pupils are to be admitted.

WILLIAM SHIPPEN, JR., M. D.,
"Professor of Anatomy and Surgery in the College of Philadelphia.

JOHN MORGAN, M. D., F. R. S., ETC.,
"Professor of Medicine in the College of Philadelphia."

In addition to this general announcement, each professor advertised his lectures.[1]

For two years lectures were delivered by these two professors under the sanction of the College.

In connection with their labors, Dr. Thomas Bond, one of the physicians of the Pennsylvania Hospital, commenced a course of Clinical Lectures in that institution. He submitted a lecture that he had prepared, introductory to his course, to the Board of Managers and his medical colleagues, which was directed to be inserted on the minutes of the Board. This lecture was publicly delivered on the third of December, 1766. It is a clear exposition of the advantages of clinical instruction in connection with medical education, at the same time evincing a deep interest in the medical school recently established, to which, as a trustee of the College, Dr. Bond had most zealously given his influence. In proof of this, the following passages may be quoted:—

"Therefore, from principles of patriotism and humanity, the Physic School here should meet all the protection and encouragement the friends of their country and well-wishers of mankind can possibly give it. Though it is yet in its infancy, from the judicious treatment of its guardians it is already become a forward child, and has the promising appearance of soon arriving at a vigorous and healthy maturity. The professors in it at present are few, but their departments include the most essential parts of education. Another teacher whose distinguished abilities will do honor to his country and the Institution, is expected to join them in the spring; and I think he has little faith, who can doubt that so good an undertaking will ever fail of additional strength and provi-

[1] See Appendix A.

dential blessing; and I am certain nothing would give me so much pleasure as to have it in my power to contribute the least mite towards its perfect establishment.

"The Professor of Anatomy and Physiology is well qualified for his task, his dissections are accurate and elegant, and his lectures learned, judicious and clear.

"The Professor of the Theory and Practice or Physic has had the best opportunities of improvement, joined to genius and application, and cannot fail of giving necessary and instructive lessons to the pupils."[1]

In 1766, Dr. Shippen's course was announced publicly on the 18th of September. That of Dr. Morgan was also announced on the 25th of the same month in these terms: "A Course of Lectures on the Theory and Practice of Physic will be delivered for the benefit of medical students, with a preparatory course on Botany, Chemistry, and the Materia Medica, being the substance of a set of lectures delivered to his pupils last winter." This, then, in reality was the first course of lectures on the practice of medicine.

The year 1766 was further memorable in the annals of the College for the award of a gold medal to Dr. Morgan for a prize essay. The following advertisement explains the nature of the transaction:—

"College of Philadelphia, March 6th, 1766.

"Whereas, John Sargent, Esq., Merchant of London and Member of Parliament, hath presented to this College a Gold Medal for the best English Essay on the reciprocal advantages of a perpetual union between Great Britain and her American Colonies, notice is hereby given by order of the Trustees, that the said Medal will be disposed of at the ensuing Commencement in May, for the best Essay that shall be produced on the subject proposed, by any one of those who have received any degree or part of their education in this College; and, as the said subject is one of the most important which can at this time employ the pen of the patriot or scholar, and is thus left open to all those who have had any connection with this College, either as students or graduates, it is hoped

[1] This lecture was published in the "North American Medical and Surgical Journal," Oct. 1827, page 266.

for the honor of the Seminary, as well as their own, they will nobly exert themselves on a subject so truly animating, which may be treated in a manner alike interesting to good men, both here and in the Mother country."

From nine performances which were presented, the Committee of Trustees selected that of Dr. Morgan, and at the Commencement held May 20th, 1766, immediately after the valedictory oration, "the Hon. John Penn, Esq., Governor of the Province, as President of the Trustees of the College, delivered the medal to the Provost, ordering him to confer it in public agreeably to their previous determination. The Provost accordingly acquainted the audience that the same had been decreed to John Morgan, M. D., F. R. S., &c., Professor of the Theory and Practice of Physic in the College of Philadelphia, and then requested Dr. Morgan to deliver his dissertation in public, which being finished, the eulogium accompanied the conferring of the medal."[1]

In 1767, a further movement was made towards a more thorough organization of the medical department, and placing it upon a proper footing in connection with collegiate privileges.

The medical gentlemen of the Board of Trustees, with the two Professors and the Provost, William Smith, D. D., united in framing a code of rules for the new department. These were submitted to the Board of Trustees at the meeting of May 12th, 1767, when they were approved and adopted. The announcement given to the public press indicates the action taken as being supposed to promote the interests of the school and of the profession.[2]

"COLLEGE OF PHILADELPHIA, July 27th, 1767.

"At a meeting of the Trustees, held the 12th of May last, it being moved to the Board that conferring the usual degrees

[1] The essay was published, with others, under the title, "Four Dissertations on the reciprocal advantages of a perpetual union between Great Britain and her American Colonies, written for Mr. Sargent's Prize Medal, to which by desire is prefixed an Eulogium, spoken on the delivery of the medal at the public Commencement of the College of Philadelphia, May 20th, 1766. Philadelphia: Printed by William and Thomas Bradford, at the London Coffee House, 1766."

[2] Pennsylvania Gazette.

in Physic on deserving students will tend to put the Practice of Physic on a more respectable footing in America; the motion was unanimously agreed to; and the following Course of Studies and Qualifications, after mature deliberation, was fixed on and enacted as requisite to entitle physical students to their different degrees.

"For a Bachelor's Degree in Physic:—

"1. It is required that such students as have not taken a Degree in any College shall, before admission to a degree in Physic, satisfy the Trustees and Professors of the College concerning their knowledge in the Latin tongue, and in such branches of Mathematics, Natural and Experimental Philosophy as shall be judged requisite to a medical education.

"2. Each student shall attend at least one course of lectures in Anatomy, Materia Medica, Chemistry, the Theory and Practice of Physic, and one course of Clynical (*sic*) Lectures, and shall attend the Practice of the Pennsylvania Hospital for one year, and may then be admitted to a Public Examination for a Bachelor's Degree, provided that on previous examination by the Medical Trustees and Professors, and such other Trustees and Professors as choose to attend, such Students shall be judged fit to undergo a public examination without attending any more courses in the Medical School.

"3. It is further required that each student, previous to the Bachelor's Degree, shall have served a sufficient apprenticeship to some reputable Practitioner in Physic, and be able to make it appear that he has a general knowledge in Pharmacy.

"Qualifications for a Doctor's Degree in Physic:—

"It is required for this Degree that at least three years have intervened from the time of taking the Bachelor's Degree, and that the Candidate be full 24 years of age, and that he shall write and defend a Thesis publicly in the College, unless he should be beyond seas, or so remote on the continent of America as not to be able to attend without manifest inconvenience; in which case, on sending a written thesis, such as shall be approved of by the College, the candidate may receive the Doctor's Degree, but his thesis shall be printed and published at his own expense.

"This scheme of a medical education is proposed to be on as extensive and liberal a plan as in the most respectable *European* Seminaries, and the utmost provision is made for rendering a Degree a real mark of Honor, the reward only of distinguished learning and abilities. As it is calculated to promote the Benefit of Mankind by the improvement of the beneficent Art of Healing and to afford an opportunity to students of acquiring a regular medical education in America, it is hoped it will meet with public encouragement, more especially as the central situation of this city, the established character of the Medical Professors, the advantages of the College and of the public Hospital, all conspire to promise success to the Design.

"For the further advantage of medical students, a course of Lectures will be given by the Professor of *Natural and Experimental Philosophy* each winter in the College, where there is an elegant and compleat (*sic*) apparatus provided for that purpose, and where medical students may have an opportunity of completing themselves in the Languages and any parts of the Mathematics at their leisure hours."

The lectures were further advertised to commence on the first Monday of November, and "to consist of a complete course of lectures on ANATOMY, to which will be added all the operations in SURGERY, and the mode of applying all the necessary bandages, &c."

"A course of Lectures on the Theory and Practice of Medicine, which will be preceded by a general explanation of the Theory of Chemistry, accompanied with some necessary operations to render a knowledge of this science easy and familiar to the inquisitive student."

"A course of Clynical Lectures, to be delivered in the Pennsylvania Hospital wherein the Treatment of both ACUTE and CHRONIC DISEASES will be exemplified in the cases of a great number of Patients.

"Each course of Lectures will be finished by the beginning of May, in time for those who intend to offer as candidates for a Degree in Physic to prepare themselves for the Examination before the Commencement of the ensuing year."

Appended to this general advertisement were those of each

professor with his own signature, and additionally that of Dr. Bond, in the following terms: "Dr. Bond's Course of Clynical Lectures, exemplifying the Theory and Practice of Physic, in the variety of Cases which present in the Pennsylvania Hospital, will be opened early in November, by a Introductory Lecture on the usefulness of a Medical School in America, and the necessity of a general Scientific Education to the students of Physic. To which will be added a Plan of the Course."

The lecture of Dr. Bond, of which no further record has been left, was apparently supplemental to the one already referred to, and shows how deeply interested he was in the success of the great experiment then in operation. A just appreciation of the efforts of Dr. Bond to aid the collegiate instruction, was entertained by the Board of Trustees. On their minutes of May, 1768, we find this entry: "Dr. Bond is requested by the Trustees and Professors to continue his Clynical Lectures at the Hospital, as a Branch of Medical Education judged to be of great importance and benefit to the students." We cannot find, however, that he was formally appointed professor. He continued to execute the duty of clinical instructor until his death in 1784, when clinical medicine had no especial representative until it was united with the Institutes in 1792.

The lectures upon Natural and Experimental Philosophy, were delivered by the Rev. Dr. William Smith, D. D., LL. D., the Provost of the College.[1] The announcement issued at the time explains their nature.

"College of Philadelphia, December 17th, 1767.

"At the request of the Medical Trustees and Professors, the subscriber having last winter opened a course of Lectures on Natural and Experimental Philosophy, for the benefit of the Medical Students, which he hath engaged to continue this winter on an extensive plan, notice is hereby given that on Monday, the 28th inst., at 12 oc., it is proposed to deliver the Introductory Lecture at the College. As these lectures are

[1] The Rev. William Smith, D. D., LL. D., was Provost of the College from 1753 to 1779, when the charter was abrogated and the University instituted.

instituted and given gratis, with the view to encourage the medical schools lately opened, and to extend the usefulness and reputation of the College, any gentlemen who have formerly been educated in this Seminary, and are desirous of renewing their acquaintance with the above mentioned branches of knowledge, will be welcome to attend the course.

"To the standing use of the large apparatus belonging to the College, Mr. Kinnersley[1] has engaged to add the use of his electrical apparatus which is fixed there, and to deliver the lectures on electricity himself, as well as to give his occasional assistance in other branches; so that with these advantages, and the many years' experience of the subscriber in conducting lectures of this kind, it is hoped the present course will answer the design of its institution and do credit to the Seminary.

W. SMITH.

"N. B.—An evening lecture in some branches of Mathematics, preparatory to the philosophical course, is opened at the College."

[1] Ebenezer Kinnersley, A. M., was Professor of Oratory and English Literature in the College from 1753 to 1773. He was interested in electricity, and aided Dr. Franklin in his experiments. See Life of Franklin by Dr. Stuber, and Lectures on Natural Philosophy by Rev. Dr. Ewing.

## CHAPTER V.

Dr. Adam Kuhn; education and appointment to the professorship of botany and materia medica—Fees of the college—Degree of Bachelor of Medicine conferred in 1768—Degree of Doctor of Medicine conferred in New York in 1769—Commencement exercises of the college on the occasion of conferring the degree of M. B.—Dr. Benjamin Rush; his education and correspondence while in Europe; appointment to the professorship of chemistry—First faculty of medicine organized—Commencement of 1771.

THE next addition to the faculty was in the person of Dr. Adam Kuhn. He was born at Germantown, Philadelphia County, in 1741. His father was a native of Swabia, a physician by profession, and a man of bright parts and liberal education. Having removed to Lancaster in Pennsylvania, where he became a magistrate, "he was deeply interested in the promotion of classical learning amongst the youth of that place, and for this end procured the erection of a school-house, in which the Greek and Latin languages were taught by the best qualified masters." Under such auspices Dr. Kuhn received his elementary education, and commenced his medical studies with the advantage of parental direction.

In 1761, Dr. Kuhn went to Europe, and, deviating thus far from the course pursued by his colleagues, resorted to Sweden for instruction in botany and materia medica, at the hands of Linnæus, then at the height of his renown. He subsequently went to Edinburgh, and received the degree of Doctor of Medicine from that University in 1767. The thesis, published by him on that occasion, "*De Lavatione Frigida*," was dedicated to his friend and instructor Linnæus. The letters of that eminent naturalist to the father of Dr. Kuhn evince the deep interest he took in the son, and the particular estimation he had conceived of his abilities.[1]

[1] A sketch of the life of Dr. Kuhn was communicated anonymously to the 8th vol. Eclectic Repository. It was written by Dr. S. Powell Griffiths.

In January, 1768, Dr. Kuhn returned from Europe, when he was at once appointed the Professor of Materia Medica and Botany in the College. These subjects had been taught by Dr. Morgan in connection with his course on the Theory and Practice of Physic; but the necessity of creating a distinct Professorship, appropriated to their consideration, was impressed upon the Board of Trustees, and Dr. Kuhn, from his training in the natural sciences, was regarded as its most fitting incumbent. The record thus refers to his election:—

"Dr. Kuhn having made application to be appointed Professor of Botany and Materia Medica in this College, declaring that he would do the utmost in his power to merit the honor, and the Trustees having ample assurance of his abilities to fill that Professorship, for which he is likewise particularly recommended by the Medical Trustees and Professors belonging to the College itself, did therefore unanimously appoint him, the said Dr. Kuhn, Professor of Botany and Materia Medica in this College, agreeably to his request."

His first course was on Botany, in May, 1768, three months after his arrival from Europe. In the following year, on May 1st, we find that Dr. Kuhn's course on the same branch was announced, but it appears in subsequent years to have been dropped.

Dr. Kuhn held the Chair of Materia Medica during twenty-one years, under the auspices of the College and University, until he assumed the Chair of Practice, as will be seen by the account hereafter given of the changes in the Medical Faculty.

The subject of fees in the College is one of some interest. With respect to the particular compensation for instruction we cannot find that there was any legislative action when the lectures were first inaugurated, and can only judge of the amount from the advertisements of the professors. The first regulation with respect to fees, more especially having reference to graduation, is found on the Minutes of the Board of Trustees of May 17, 1768, to wit:—

"The following Rules brought forward by the Medical Committee of Trustees and Professors were agreed to, viz:—

"1. Such Medical Students as propose to be Candidates for Degrees, and likewise such other Medical Students as shall

attend the Natural Philosophy Lectures now given by the Provost, and whose names have never been entered in the College, shall enter the same, and pay the usual sum of Twenty Shillings *Matriculation Money.*

"2. Every student on taking the Degree of Bachelor of Physic shall pay not less than one Guinea to each Professor he has studied under in the College, from the time of his entering the Medical Classes; and likewise the usual Fees for the seal to his Diploma, and for the increase of the Library.

"3. Each Medical Student who shall pay one Dollar for the use of the Library (exclusive of the Fee of Commencements) shall have his name entered, and have the free use of the Books belonging to the Medical Library of the College during his continuance of the same and attendance of lectures under the Medical Professors."

The price of tickets for a single course, *i.e.*, to each professor, was determined not to exceed six pistoles ($20), and after two courses the students had the privilege of attending gratis.

The next event in the order of time is an important one in the history of the medical school. The bestowal of the first medical honors by the institution, and the first in America, in itself constitutes an epoch. Under the regulations that had been adopted this event took place on June 21st, 1768.

The question as to which medical school, that of Philadelphia or that of New York, the honor of priority is to be awarded in the bestowal of degrees has been a mooted one. Dr. Hosack claims the distinction for New York, and comments in the following language with reference to it: "Dr. Sewall, in his excellent Introductory Lecture, delivered at the opening of the Medical School of Columbian College, District of Columbia, also[1] is in error in his statement relative to the first medical degrees conferred in the colonies, now the United States. In the discourse referred to he dates the first medical degrees as conferred at the Commencement held in Philadelphia on June, 1771, whereas the doctorate had been previously conferred in the month of May of the preceding year in the

[1] The word "also" has reference to a mistake of Dr. Miller in his Retrospect of the Eighteenth Century, who stated that no degrees in medicine were conferred by King's College, New York, previously to the Revolution.

city of New York. The same error has been committed by Dr. Thatcher, in the new edition of his Modern Practice recently published."[1]

Dr. Beck reiterates this statement when referring to the schools. He informs his readers that the schools thus started in New York and Philadelphia were the only ones attempted before the Revolution. "The first medical degrees were given by the College of New York. In 1769, the degree of Bachelor in Medicine was conferred upon Samuel Kissam and Robert Tucker. In 1770 the degree of Doctor of Medicine was conferred on the last of these gentlemen, and in May of the following year upon the former. In June, 1771, the degree of Doctor in Medicine was conferred on four students of the Philadelphia College, being the first given in the institution."[2]

The truth is that Dr. Sewall, in his lecture, correctly presented the fact, overlooked by Dr. Hosack, that in June, 1768, the first Commencement of the College of Philadelphia was held, at which the degree of Bachelor of Medicine was conferred, and further stated that "at the Commencement in 1771, the degree of M. B. was conferred on seven, and the degree of M. D. on four students."[3] This latter statement is made by Dr. Thatcher in his History of American Medicine, prefixed to his Medical Biography, without reference to any previous Commencement. With respect to the prospective conferring of degrees Dr. Morgan, in writing to Mr. William Hewson, of London, November 20th, 1767, thus expresses himself:—

"I have twenty pupils this year at about five guineas each. Next year we shall confer the degree of Bachelor in Physic

[1] An Inaugural Discourse delivered at the opening of Rutgers Medical College in the City of New York, on Monday the 6th day of November, 1826, by David Hosack, M. D., F. R. S.

[2] An Historical Sketch of the State of Medicine in the American Colonies, etc., ante citat.

[3] A Lecture delivered at the opening of the Medical Department of the Columbian College, in the District of Columbia, March 30th, 1825, by Thomas Sewall, M. D., Professor of Anatomy and Physiology, Washington City, 1825. Note to page 26 at p. 67. This note was furnished by Prof. J. R. Coxe, M. D., in a letter to Dr. Sewall, and is correct in all particulars.

on several of them, and that of Doctor in three years after. New York has copied us, and has six Professors, three of whom you know, to wit, Bard, Professor of Physic; Tennant, of Midwifery; and Smith, in Chemistry; besides whom are Dr. Jones, Professor of Surgery; Middleton, of Physiology; and Clossy, of Anatomy. Time will show in what light we are to consider the rivalship; for my part, I do not seem to be under great apprehensions."[1]

The degree of Bachelor of Medicine was conferred, in 1769, by King's College, New York, and the degree of Doctor of Medicine in 1770. From this it appears that the claim of priority in conferring degrees in medicine must be awarded to the Philadelphia School, while the precedence in conferring the Doctorate must be given to New York.

As all the points connected with the mode of proceeding in the infancy of the school are worthy of notice, the resolutions with regard to the examination of applicants have been transcribed from the Minutes of the College of May 17, 1768.

[1] In July, 1767, the first measures were taken in New York; and in 1768, a Medical School was organized under the direction and government of the College, which was then called King's College. A Board of Professors was then appointed to teach the several branches of Medical Science. The instructors in this early school were Samuel Clossy, M. D., Professor of Anatomy; John Jones, M. D., Professor of Surgery; Peter Middleton, M. D., Professor of Physiology and Pathology; James Smith, M. D., Professor of Chemistry and Materia Medica; John V. B. Tennant, M. D., Professor of Midwifery; and Samuel Bard, M. D., Professor of the Theory and Practice of Physic.

The occupation of the city of New York by the British army for so long a period of the war prevented the continuance of the operations of this school. After the peace of 1783, the former medical professors, being separated by death or accident, never as a body were reinstated in their former situation in the College. An effort was made to resuscitate the Medical School, but was unsuccessful. In 1792, Columbia College, which had superseded King's College, instituted a Medical Faculty at the head of which was Dr. Samuel Bard. But the effort had not much success, as "it appears from the records of Columbia College since 1792, the time when the Medical Faculty of that School was organized, to the year 1811, thirty-four students have completed their courses of study, and received the medical honors of that institution." The College of Physicians and Surgeons of New York was established in 1807.—*Hosack's Introductory. Beck's Sketch; also Historical Sketch of the Origin, Progress, and Present State of the College of Physicians and Surgeons of the University of New York. American Medical and Philosophical Register*, vol. iv. 1814.

"It was agreed that in pursuance of a Proposal given in by the Medical Trustees and Professors, the examination of the Medical Students for the degree of Bachelor of Physic shall be made in the following mode, according to the Rule originally laid down for the Medical Schools, which requires a full private examination before admission to the public one.

"Wherefore the private examination shall begin in the College, on the 9th of May, being Monday next, and shall be finished on Monday, the 16th. Such of the Medical Students as may appear fit, after such private examination, shall be admitted to a public examination in the College on Wednesday, the 18th of May."

The ceremonies attending the Commencement of June 21, 1768, are minutely detailed upon the Minutes of the Board of Trustees, and are full of interest in connection with the customs of the time. They are thus set forth:—

"This day may be considered as the *Birth-day of Medical Honors in America.* The Trustees being met at half an hour past nine in the forenoon, and the several Professors and Medical Candidates, in their proper Habits, proceeded from the Apparatus Room to the Public Hall, where a polite assembly of their fellow-citizens were convened to honor the Solemnity.

"The Provost having there received the Mandate for the Commencement from his Honor the Governor, as President of the Trustees, introduced the business of the day with Prayers and a short Latin Oration, suited to the occasion. The part alluding to the School of Medicine is in the following language:—

"'Oh! Factum bene! Vos quoque Professores Medici, qui magno nummi, temporis et laboris sumptu, longâ quoque peregrinatione per varias regiones, et populos, domum reduxistis et peritiam, et nobile consilium servandi, et rationali praxi, docendi alios servare valetudinem vestrûm civium. Gratum fecistis omnibus, sed pergratum certé peritis illis medicis, qui artis suæ dignitatis conscii, praxin rationalem, et juventutis institutionem in re medicâ liberalem, hisce regionibus, ante vos longé desideraverunt.'

"To this succeeded—

"1. A Latin oration, delivered by Mr. John Lawrence,

'De Honoribus qui in omni ævo in veros Medicinæ cultores collati fuerint.'

"2. A dispute, whether the Retina or Tunica Choroides be the immediate seat of vision? The argument for the retina was ingeniously maintained by Mr. Cowell; the opposite side of the question was supported with great acuteness by Mr. Fullerton, who contended that the Retina is incapable of the office ascribed to it, on account of its being easily permeable to the rays of light, and that the choroid coat, by its being opaque, is the proper part for stopping the rays, and receiving the picture of the object.

"3. Questio, num detur Fluidum Nervosum? Mr. Duffield held the affirmative, and Mr. Way the negative, both with great learning.

"4. Mr. Tilton delivered an essay 'On Respiration,' and the manner in which it was performed did credit to his abilities.

"5. The Provost then conferred the degree of Bachelor of Medicine on the following gentlemen, viz: Messrs. John Archer, of New Castle County; Benjamin Cowell, of Bucks; Samuel Duffield and Jonathan Potts, of Philadelphia; Jonathan Elmer, of New Jersey; Humphrey Fullerton, of Lancaster County; David Jackson, of Chester County; John Lawrence, of East Jersey; James Tilton, of Kent County, Delaware; and Nicholas Way, of Wilmington.

"6. An elegant valedictory oration was spoken by Mr. Potts, 'On the Advantages derived in the Study of Physic, from a previous liberal education in the other sciences.'

"The Provost then addressed the Graduates in a brief Account of the present state of the College, and of the quick progress in the various extensive establishments it hath already made. He pointed out the general causes of the advancement as well as decline of literature in different Nations of the World, and observed to the Graduates, that as they were the first who had received medical honors in America, on a regular Collegiate plan, it depended much on them, by their future conduct and eminence, to place such honors in estimation among their countrymen; concluding with an earnest appeal that they would never neglect the opportuni-

ties which their profession would give them, when their art could be of no further service to the body, of making serious impressions on their patients, and showing themselves men of consolation and piety, especially at the awful approach of death, which could not fail to have singular weight from a lay character.

"Dr. Shippen, Professor of Anatomy and Surgery, then gave the remainder of the charge, further inviting the Graduates to support the dignity of their Profession by a laudable perseverance in their studies, and by a Practice becoming the character of gentlemen; adding many useful precepts respecting their conduct towards their patients, charity towards the poor, humanity towards all; and with reference to the opportunities they might have of gaining the confidence of the sick, and esteem of every one who by their vigilance and skill might be relieved from suffering, and restored to health.

"The Vice-Provost concluded the whole with Prayer and Thanksgiving."[1]

At a public Commencement held June 30, 1769, the degree of Bachelor of Medicine was conferred on eight candidates, viz: James Armstrong, John Hodge, John Houston, Josias Carroll Hall, Thomas Pratt, Alexander Skinner, Myndert Veeder, and John Winder. The exercises were of a character similar to the preceding, the charge being given by Dr. Bond.[2]

In the year 1769, Dr. Benjamin Rush, on his return from Europe, was elected Professor of Chemistry. He was born in Pennsylvania, in 1745. His classical education was commenced at the celebrated school of Rev. Dr. Finley, at Nottingham, in Maryland; and so well trained was he that he entered the Senior Class at Princeton College, and graduated at the expiration of the term in 1760, when hardly sixteen years of age. President Davies was then at the head of the Institution. The next six years of his life were spent in the study of medicine with Dr. Redman, and he was one of the

[1] The account is published in the Pennsylvania Gazette, July, 1768.
[2] See Appendix B.

first pupils in attendance upon the lectures of Dr. Shippen. In 1766 he went to Edinburgh, where, in 1768, he took his degree of Doctor of Medicine; the same year in which the first medical honors were conferred in America. The subject of his thesis was "De coctione ciborum in ventriculo."

It is stated by Dr. Ramsay, in his eulogium, "that the Writings of Hippocrates were among the first books Benjamin Rush read in Medicine, and, while he was an apprentice, translated his Aphorisms from Greek into English. He also began to keep a note-book of remarkable occurrences, the plan of which he afterwards improved and continued through life. From a part of this record, written in the seventeenth year of his age, we derive the only account of the yellow fever of 1762, which has descended to posterity." An account of this same epidemic has recently been published by the College of Physicians of Philadelphia, from a manuscript of Dr. Redman, found among its Archives.[1]

The desire of Dr. Rush to become the incumbent of the Chair of Chemistry in the Medical School of Philadelphia, was formed while he was still a student at Edinburgh, and in this he was evidently supported by the friendly suggestions of Dr. Morgan. In a letter to this gentleman, dated Jan. 20, 1768, he thus expresses himself: "I exult in the happy prospects, which now open upon you, of the success of the Medical Schools you have established in Philadelphia. The scheme you have published for conferring degrees in Physic has met with the approbation of Dr. Cullen himself, who interests himself warmly in everything that relates to your reputation or success in life; he thinks himself happy, he says, in educating those young men to whom so important a Medical College as that in Philadelphia will owe its foundation and future credit."

"I thank you for the pains you have taken to secure me the Professorship of Chemistry. I think I am now master of

[1] An Account of the Yellow Fever, as it prevailed in Philadelphia in the Autumn of 1762, by John Redman, M. D., First President of the College. A paper presented to the College of Physicians of Philadelphia, at its stated meeting, September 7, 1793, now for the first time published by order of the College, 1865.

the science, and could teach it with confidence and ease. I have attended Dr. Black for two years diligently, and have, I think, received from him a comprehensive and accurate view of the science, together with all his late improvements in chemistry, which are of so important a nature that no man, in my opinion, can understand or teach chemistry as a science without being acquainted with them." "As to the experiments you speak of, there is scarcely one of them but what I have seen twice performed, either publickly or privately, by Dr. Black." Again: "I would not, however, urge your interest too warmly in this affair; perhaps I may disappoint the expectations of the Trustees, and prevent a person better qualified from filling the chair. I should like to teach Chemistry as a Professor, because I think I could show its application to medicine and philosophy." "I should likewise be able more fully, from having a seat in the College, to co-operate with you in advancing the Medical Sciences generally."

Of the certainty of his election Dr. Rush must have received an intimation, as in October, 1768, he thus wrote from London to Dr. Morgan: "I am much obliged to you for continuing to read lectures upon Chemistry. I hope to be in Philadelphia in May or June next, so that I shall relieve you from the task the ensuing winter. Is it necessary for me to deliver publickly an Inaugural Oration? Something must be said in favor of the advantages of Chemistry to Medicine, and its usefulness to medical philosophy, as the people of our country in general are strangers to the nature and objects of the science."

The language of Dr. Rush, in the extracts from his correspondence which have been presented, indicates that although conscious of his own acquirements, ambitious of advancement in connection with usefulness, animated almost by a prescience of the distinction to which he ultimately attained, and relying on a will and industry to secure success in the position he desired, he was still diffident in the expression of his fitness for the office.

The wishes of Dr. Rush were fully realized. At a meeting of the Board of Trustees, July 23, 1769, a letter was read

from Thomas Penn, Esq., dated May, 1769, of which the following is a copy:—

"GENTLEMEN: Dr. Rush having been recommended to me by Dr. Fothergill as a very expert Chymist, and the Doctor having further recommended to me to send a Chymical Apparatus to the College, as a Thing that will be of great use, particularly in the tryal of ores, I send you such as Dr. Fothergill thought necessary, under the care of Dr. Rush, which I desire your acceptance of. I recommend Dr. Rush to your notice, and humbly wishing success to the College, remain, with great regard,

"Your very affectionate friend,

THOS. PENN.

"To the Trustees of the College of Philadelphia."

The following is a part of an address to the Hon. Thomas Penn, Esq., approved and signed August 1, 1769:—

"We have likewise the pleasure to acknowledge a fresh instance of your benevolence in sending us a Chemical Apparatus under the care of Dr. Rush, who will meet with all the encouragement from us due to your recommendation and his own good character."

At the same meeting, a letter was submitted by Dr. Rush, applying for the Professorship of Chemistry.

"GENTLEMEN: As the Professorship of Chemistry, which Dr. Morgan hath some time supplied, is vacant, I beg to offer myself as a Candidate for it. Should you think proper to honor me with the Chair, you may depend upon my doing anything that lies in my power to discharge the duties of a Professor, and to promote the reputation and interest of your College.

"I have the honor to be, with the greatest respect,

Your most obedient, humble servant,

BENJ. RUSH.

"PHILADELPHIA, July 31, 1769."

"In consequence of the above application, and in consideration of Dr. Rush's character as an able Chemist, he was

unanimously appointed Professor of Chemistry in the College."

From the more complete organization of the Medical Faculty, effected in the manner now detailed, the session of 1769–70 may be regarded as the commencement of greater vigor in the School. The Announcement stood as follows:—

| | |
|---|---|
| Theory and Practice of Medicine, | JOHN MORGAN, M. D. |
| Anatomy, Surgery, and Midwifery, | WM. SHIPPEN, JR., M.D. |
| Materia Medica and Botany, | ADAM KUHN, M. D. |
| Chemistry, | BENJAMIN RUSH, M. D. |
| Clinical Medicine, | THOMAS BOND, M. D. |

Additionally to the strictly medical courses, the Rev. Dr. Smith, Provost, delivered lectures on Natural Philosophy to the Class.[1]

It may be of interest to know the ages of the above-named members of the Faculty of Medicine at the period of its existence in 1769. Like the School itself, the Professors would, in these days, be considered juvenile; but in the vigor of their youth, they were capable of accomplishing great things, and failed not in their endeavor. Rush was but twenty-four years old; Kuhn but twenty-eight; Shippen thirty-three; and Morgan thirty-four. Bond only had arrived at that age when experience is supposed to bring the greatest wisdom; he was over fifty years.

At the Commencement before referred to in June, 1771, the degree of Bachelor of Physic was conferred on Benjamin Allison, Jonathan Easton, John Kuhn, Frederick Kuhn, Bodo Otto, Robert Pottinger, and William Smith.

Four graduates who had received the primary degree in 1768, now received that of Doctor of Medicine, viz: Jonathan Potts, whose thesis was "De Febribus Intermittentibus Potissimum Tertianis;" James Tilton, "De Hydrope;" Nicholas Way, "De Variolarum Insitione;" Jonathan Elmer, "De Causis et Remediis sitis in Febribus."[2]

The theses of these gentlemen were written in the Latin

[1] Appendix C. [2] Appendix D.

language, and, according to the rule heretofore given, as enacted in 1767, were published.

Professor Beck has fallen *partially* into error in his interesting historical sketch, when he states that no medical journal of any description appears to have been published until after the war of our Independence; and that "the *only* inaugural dissertation that was published was from the New York College in 1771, by Samuel Kissam, M.D., 'On the Anthelmintic Virtue of the Phasceolus Zuratensis;' 'Siliqua Hirsuta, or Cow-itch,' a copy of which may be seen in the library of the New York Historical Society." In this he is evidently mistaken, for the theses of the graduates of the College of Philadelphia were published in 1771, and are now in existence.

## CHAPTER VI.

Connection between the medical department of the College of Philadelphia and that of the University of Edinburgh—Sketch of the origin of the Edinburgh school and of its position in 1768—Dr. Cullen.

FROM a comparison of the course of instruction in the College of Philadelphia, from the time of its inception to that of its complete organization, with that of the University of Edinburgh, there can be no doubt that this distinguished school was taken as the model for imitation.

The individuals who composed the medical faculty of the College, the first occupants of the chairs, were graduates of the Edinburgh school, and had unavoidably acquired an affection and preference for its system of instruction. They were familiar with all its details and methods; and on assuming their positions the bright days of their student life were vivid in their memories. Regarding with reverence and enthusiastic admiration the men who had been their preceptors, it was most natural that these zealous colonial students should desire to transfer to their native shores the peculiar doctrines that had been inculcated, as well as the stores of learning of which they had been the recipients.

But further, between our own school and that of Edinburgh the parallelism is so close as to be worthy of particular attention; indeed, the resemblance can only be explained by the laws of descent which mould the features of the child like those of the parent, and impart similar moral and mental characteristics. The medical school of Philadelphia may be said to be the legitimate offspring of that of Edinburgh. The latter had its origin with the Scotch students in attendance upon the lectures of the University of Leyden, who forty years previously were actuated by the same motives which prompted the American students, while abroad, to the projection of their enterprise.

We are told by Dr. Fothergill that "there had long been

Professorships for Medicine in Edinburgh (connected with the College of Surgeons), and several attempts had been made to introduce a general course of Medical instruction; but it was not until the year 1720 that this University distinguished itself. Several gentlemen who had studied under Boerhaave with the view to revive the study of Medicine in their native country where it had formerly flourished, qualified themselves for the purpose of giving courses of public lectures on every branch of their profession. The celebrated Monro taught Anatomy after having studied it for several years under the ablest masters then in Europe. The Theory of Physic was assigned to the amiable, the humane Dr. Sinclair; Drs. Rutherford and Innes chose the Practice; Chemistry was allotted to Dr. Plummer; and the teaching of Materia Medica (of which last he was appointed King's Professor) devolved upon the learned and indefatigable Alston."[1] With what success the labors of these enterprising men were crowned, the record of the uniform, unswerving advancement of the Medical School of Edinburgh, and its eminent position now, afford the evidence. Has not the institution which was founded by Morgan and Shippen, by Kuhn and Rush, and Bond, been found equally worthy of praise and admiration?

Lectures upon anatomy were given in Edinburgh in 1694, by Mr. Monteith, and subsequently he delivered lectures on chemistry. Mr. Robert Eliot was appointed, in 1705, the first Professor of Anatomy in the University. To him succeeded, in 1714, Mr. Drummond, who had associated with him Mr. Magill, but in consequence of the difficulty of procuring subjects and of numerous drawbacks, which rendered their instruction irregular and unsatisfactory, they, in 1720, withdrew in favor of Mr. Alexander Monro, who is justly considered as the founder of the Anatomical School of Edinburgh. His first lecture was public. "The Lord Provost, accompanied by his friends in the Magistracy, the President and Fellows of the College of Physicians, and the President, accompanied by the Members of the College of Surgeons, honored him with their presence."[2]

[1] Essay on the Character of the late Alexander Russel, M. D., F. R. S. Fothergill's works, quarto ed., p. 430.

[2] The History of the University of Edinburgh, &c., by Alexander Bower. Edinburgh, 1817, vol. ii. p. 166. An interesting sketch of the

"Towards the end of his *third* course, Mr. Monro, encouraged by the success that had attended his exertions, and with the concurrence and urgent recommendations of his friends, which indeed in this instance were only an echo of the opinion of the public, presented a petition to the honorable patrons, in which he set forth the usefulness of the study of anatomy, and the advantages it might be of to Edinburgh; and in order thereto, the necessity of putting the commission of a professor on such a footing as might encourage him effectively to follow out the design for which he was appointed."

The following extract from the response to this petition evinces the ready acquiescence on the part of the Council: "being fully convinced of the fitness and sufficiency of the said Mr. Alexander Monro, in all respects for the said profession, and well acquainted with his diligence and assiduous application in the exercise of it, they therefore for his better encouragement, of anew, again nominate, &c., him sole Professor of Anatomy within this city and College of Edinburgh, and that, *ad vitam aut culpam*, notwithstanding any act of Council formerly made to the contrary."[1]

The success of Mr. Monro's lectures encouraged the magistrates to extend their liberal patronage in favor of public medical teaching, and induced them, in 1724, to appoint Dr. Potterfield the Professor of the Institutes of Medicine, and two years afterwards (1726) to elect Dr. Andrew Sinclair and John Rutherford Professors of the Practice of Medicine, and Andrew Plummer and John Jones Professors of Medicine and Chemistry. In subsequent arrangements, to these gentlemen Dr. Alston was added, who, although a teacher of Materia Medica and Botany at the Botanic Garden, was not appointed

"Early History of the Medical Profession in Edinburgh," written by Dr. John Gairdner, has been published in the Edinburgh Medical Journal, vol. ix. Part II.

[1] Bower's History, vol. ii. pp. 181, 182.

In the No. of the Dublin Medical Press and Circular for May 9th, 1866, is an interesting lecture, by Prof. Struthers, of Edinburgh, before the Royal College of Surgeons, on the History of the Edinburgh Anatomical School. The details of this lecture, with reference to Mr. Monro, are in accordance with what has been given from the authorities cited. Mr. Monro was in his twenty-third year when he was elected Professor of Anatomy by the Town Council of Edinburgh.

legally a professor until 1730. As Dr. Potterfield, as far as ascertained, did not lecture, the six other gentlemen who have been named may be regarded as, de facto, founders of the Medical Department of the University of Edinburgh.

The only degree conferred by this University was that of Doctor of Medicine; with reference to which we are informed that "the Medical Faculty being now constituted, degrees were conferred after a much more regular manner, and, with some slight variations, the forms adopted at Leyden, *where the Professors themselves had been educated*, were preferred." To exhibit the requirements of the school, the following rule may be cited:—

"The Candidate must have attended the lectures given by the Professors of Anatomy and Surgery, Chemistry, Botany, Materia Medica and Pharmacy, the Theory and Practice of Medicine, and Clinical Medicine in the Hospital."[1] The requisite examinations followed. It appears to have required nearly twenty years to thus far perfect the course of instruction in the school that must be regarded as the parent of our own.[2]

It would seem that difficulties in prosecuting anatomical investigation and teaching beset the efforts of the profession in Scotland as well as in this country. The coincidence in this respect is worthy of notice, evincing the prejudices of the populace in connection with matters deeply involving its own welfare and interests, and the mode of eradicating them by judicious management. By the historian of the University of Edinburgh, the account of Mr. Monro's troubles is thus given: "Mr. Monro never desisted from exerting himself in the line of his profession, with that ability, diligence, and steadiness which secured the approbation of all. In some respects, however, he had a difficult part to perform. The population of the town then amounted to only thirty thousand, and he had inspired his pupils with such a taste for anatomy and the opportunities they possessed were so limited that they were uneasy under the restraint. In April, 1725, however, some of the more enterprising of the students,

[1] Bowers' History, vol. ii. p. 217.

[2] The first degree of M. D. was conferred by the University of Edinburgh in 1705. See Catalogue of Graduates.

as was supposed, had attempted to violate the graves of the dead. Mr. Monro's well-known character placed him above suspicion in the eyes of sober-minded men, but the vulgar of all denominations were of a different opinion. The city was in an uproar, and an Edinburgh mob was in those days very formidable. They beset Surgeon's Hall, where Mr. Monro had from the first delivered his lectures, and had it not been for the spirited and vigorous measures of the magistrates, they would have destroyed and trampled under their feet the Anatomical preparations which he had accumulated with so much labor and expense. The tumult was fortunately quelled, but the magistrates found it necessary or convenient, in order to pacify the multitude, to offer a reward of £20 sterling to those who would discover the persons that were accessory to stealing dead bodies. The Session of the College rose in the course of a few weeks; no discovery was made, and the circumstance which occasioned the riot was speedily forgotten." The preceding occurrence led to provision within the buildings of the University for the accommodation of the Medical School, and the greater security of the Museum belonging to it.

A similar unfortunate occurrence disturbed the quiet of Dr. Shippen's demonstrations in Philadelphia. On one occasion his house was mobbed, and only by exercising great tact, and by the judicious interference of his friends and of the authorities was he saved from the entire destruction of his accumulated materials for teaching. The event was known for years after to the inhabitants as the Sailors' Mob. In one of his early advertisements, Dr. Shippen exculpates himself from the imputation of procuring subjects in an illegal manner, by violating the sanctuary of the dead.[1]

In the changes that had taken place in the Faculty of the University of Edinburgh, at the period when the founders of the American School were educated within its walls, Cullen had come upon the theatre of action, and filled the highest place in their affections. As with the students of the University of Leyden, Boerhaave had been the ruling spirit, and had stamped his genius upon their thoughts and opinions,

[1] See Appendix E.

so, by the pupils who listened to his instructions, Cullen was regarded as the paragon of scientific medical intellectuality. He had succeeded Dr. Plummer in the Chair of Chemistry in 1756, and Dr. Whytt in that of Institutes in 1766, which position he was holding at the time the American students, who were the founders of our School, were in attendance upon his lectures.

The warmth of commendation on the part of Dr. Rush may be taken as an explicit illustration of the popularity of Dr. Cullen with his pupils. "Dr. Cullen (says he, in writing to Dr. Morgan) continues still to be the idol of his pupils; he has lately proposed a Theory concerning the offices of the Brain and Nerves that will do him more honour, however, than anything he has ever yet found out. I have not room to do it justice in this place; hereafter you shall be welcome to it. His Clinical lectures and his practice in the Infirmary cannot be too highly praised; in each of them he shows the most extensive reading and the most consummate skill. He intends to publish a '*Nosologica Methodica*' next summer, which will contain a complete arrangement of all diseases under proper classes, orders, genera, and species, somewhat in the manner of Sauvages, tho' considerably different from his in the matter of arrangement."

When Cullen first began to lecture in the Infirmary of Edinburgh upon practical medicine, he deviated from the routine of following Boerhaave implicitly. To this, exception was strongly taken. He tells the story of the difficulties he experienced in thus deviating from so renowned a master, in his Introductory to the Session of 1783–4: "About twenty years after I had left this University as a student, I was again called to it to take a Professor's Chair, when I still found the system of Boerhaave prevailing as much as ever, and even without any notice taken of what Boerhaave himself and his commentator, Van Swieten, had in the meantime added. Soon after I came here I was engaged to give Clinical, that is to say, practical lectures, and in these I ventured to give my own opinion of the nature and cure of diseases different in several respects from that of the Boerhaavians. This soon produced an outcry against me. In a public College, as I happened to

be Professor of Chemistry, I was called a Paracelsus, a Van Helmont, a whimsical innovator, and great pains were taken in private to disparage myself and my doctrines."[1] Cullen lived to know that his teachings had as wide a circulation and as much authority as those of Boerhaave, which ultimately gave place to them.

It was determined, as we are informed by Dr. Thomson in his Life of Cullen, that he should deliver a course of Lectures on the Practice of Medicine during the summer of 1768. He accordingly delivered his first course on that branch at the time specified, and continued to alternate with Dr. Gregory until the death of that professor in 1773, when he succeeded to the Chair. With respect to the above-mentioned arrangement, it appears that an application was made by Dr. Cullen, with the concurrence of Dr. Gregory, for a joint appointment to the Chair of Practice.[2] The movement appears to have been instigated by the students of the University, who were impressed by Dr. Cullen's teaching at the Infirmary, although Mr. Bower states that "the origin of the whole transaction is involved in obscurity." "The students were divided in their opinions respecting the abilities of these eminent men as public lecturers, and as usual entered very keenly into the medical theories they severally taught."[3] This is clear from the correspondence of Dr. Rush, then in Edinburgh, which, although commendatory of Gregory, is enthusiastic with respect to Cullen. In a letter, July 27th, 1768, to Dr. Morgan, he says: "Dr. Cullen, the great unrivaled Dr. Cullen, is going on unfolding each day some new secret to us in the Animal economy; his lectures on the Practice of Physic this summer are richly worth my staying for."

When we take into consideration the enthusiasm manifested by Dr. Rush with respect to the prelections of Cullen,

[1] An Account of the Life, Lectures, and Writings of William Cullen, M. D., Professor of the Practice of Physic in the University of Edinburgh, by John Thomson, M. D., F. R. S., L. and E., Professor of Medicine and General Pathology in the University of Edinburgh, vol. i. p. 161.

[2] Bower's History of the University of Edinburgh, vol. ii. p. 385; vol. iii. p. 108.

[3] Bower, loc. cit.

how worthy of attention is the similarity of their public career. They both occupied successively the same chairs in the respective institutions of which they were conspicuous ornaments and supporters. Cullen commenced his course of teaching in the Professorship of Chemistry, was transferred to that of Institutes, and, finally, to the one of Practice; while Rush, in the term of his long life, occupied successively the chairs pertaining to each of these branches of medical science.

When Cullen became a teacher of medicine, he made an innovation which at the time was considered rash. It was the abandonment of the Latin language and the use of vernacular English. The Latin was considered the language of science, and as such was used upon the Continent, as well as in England and Scotland. He was accused of not being sufficiently familiar with it to use it readily, but from this charge he is vindicated by the fact of having received his education in that tongue, and moreover of having delivered a course of botany in it. When, about the year 1746, he adopted the new plan of delivering his lectures, he conferred a service which was afterwards acknowledged by its imitation. From this period the use of the Latin language was gradually dropped.[1]

The Lectures on the Materia Medica by Dr. Cullen, were first republished in Philadelphia, by Robert Bell, in 1775. To exhibit the estimation in which that distinguished teacher was held everywhere, the following advertisement is singularly pertinent. "The American Physicians who wish to arrive at the top of their profession are informed that the great Professor Cullen's Lectures on the Materia Medica, containing the *very cream of Physic*, are now selling by the said Bell, on Third Street. Price Five dollars." The expectation of a ready sale may be surmised from this extract.[2]

Cullen's "First Lines of the Practice of Physic" was subsequently published in this country, in 1781. With reference

[1] See Thomson's Life of Cullen, vol. i. p. 28.

[2] The work first published was a surreptitious edition of the Lectures on Materia Medica by Dr. Cullen, delivered in 1761. It was issued from the Edinburgh Press in 1771, when an injunction to prohibit its sale was obtained from the Court of Chancery. It was republished in London in 1773. Dr. Cullen published his "Treatise of Materia Medica" in 1789.

to this work, an interesting extract of a letter from Dr. Rush to Dr. Cullen may be given. "One of the severest taxes paid by our profession during the war was occasioned by the want of a regular supply of books from Europe, by which means we are eight years behind you in everything. Your First Lines was almost the only new work that was smuggled into the country. Fortunately it fell into my hands. I took the liberty of writing a Preface to it, and published it during the war. The American Edition had a rapid sale and a general circulation through the United States. It was read with peculiar attention by the physicians and surgeons of our army, and in a few years regulated in many things the practice in our hospitals. Thus, Sir, you see you have had a hand in the Revolution, by contributing indirectly to save the lives of the officers and soldiers of the American Army." 16th Sept., 1783. At the time mentioned, the first volume only of the work was republished; it had been issued in Edinburgh in 1777. Cullen had able coadjutors in the University of Edinburgh. Monro (secundus) had great distinction as an anatomist and surgeon; the name of Gregory was regarded with respect; Home, Hope, and Young were filling their parts with credit to themselves and usefulness to the institution; while Black had inscribed his name upon the roll of fame, by his doctrine of latent heat and his discovery of carbonic acid. Of such luminaries was formed that cynosure in the northern firmament of medical science, which attracted the attention of the intellectual world, and directed the steps of those who sought for lights to guide them in preparation for professional duties.[2]

[1] An Eulogium upon Dr. Cullen was read before the College of Physicians of Philadelphia, by Dr. Rush, July 9, 1790.

[2] In 1768 the Faculty of the Medical Department of the University of Edinburgh was thus constituted:—

| | | |
|---|---|---|
| Alexander Monro, M. D., | Professor of | Anatomy and Surgery. |
| William Cullen, M. D., | " | Institutes of Medicine. |
| John Gregory, M. D., | " | Practice of Medicine. |
| Joseph Black, M. D., | " | Chemistry. |
| Thomas Young, M. D., | " | Midwifery. |
| Francis Home, M. D., | " | Materia Medica. |
| John Hope, M. D., | " | Botany. |

John Rae, M. D., Lecturer on Surgery in the Infirmary.

## CHAPTER VII.

Effect of the American Revolution upon the College of Philadelphia—Abrogation of its charter and the establishment of the University of the State of Pennsylvania—Restoration of the charter and privileges to the college—Union of the two institutions under the name of University of Pennsylvania.

THE fortunes of our medical school, for twenty years after the organization of the faculty in 1769, were checkered and unequal. An intermission of Dr. Morgan's lectures took place in the winter of 1772–73, in consequence of his absence in the West Indies, whither he had been sent by the Board of Trustees to collect funds for the College. At this time the medical class had increased to between thirty and forty students. But soon the disordered condition of society, attendant upon the Revolution, disturbed the quiet flow of scientific pursuits, and led to the suspension or to the serious embarrassment of academic establishments on the American Continent. In illustration it may be stated that the Professors of the College of Philadelphia applied to the "Council of Safety" for relief from their annoyances, informing it "that the Schools were interfered with and inconvenienced by the occupation of the grounds and buildings by soldiers, who did much injury to the property."[1]

In the years 1776 and 1777, the lectures upon anatomy were wholly suspended in the College, and afterwards necessarily shorter than usual, and, as far as can be ascertained, the lectures on the other branches were either interrupted or but partially given.[2] The occupation of the city by the British in the autumn of 1777 was the occasion of the removal of the effects of the College, which, as far as possible, were secured privately by the professors.[3]

[1] June 23, 1777, Pa. Archives, vol. v. p. 198.

[2] Eulogium on Dr. Shippen by Dr. Caspar Wistar, p. 29.

[3] It is a tradition in the family of the Provost, the Rev. Dr. Smith, that

Several of the medical professors took their place as medical officers of the army. Morgan and Shippen successively acted in the capacity of Medical Director-General during the Revolution, and Rush as Medical Director of the Middle Department. The latter was also a member of the Congress which signed the Declaration of Independence.[1] The account of the services rendered by the Medical Professors as well as by the members of the Profession generally, may be gathered from the biographies which have been given us of the most eminent physicians and surgeons of the period. Two of the graduates, of the Class of 1768 and 1771, of the College were useful and distinguished physicians of the Hospital Department of the American Army, viz., Jonathan Potts and James Tilton. An estimate may be formed of the difficulties encountered by the army physicians and surgeons from the transcript of part of a letter written by the former of these gentlemen, Dr. Potts, who was Director for the Northern Department.

"FORT GEORGE, August 10th, 1776.

"The distressing situation of the sick here is not to be described; without clothing, without bedding, or a shelter sufficient to screen them from the weather, I am sure your known humanity will be affected when I tell you we have at present upwards of one thousand sick, crowded into sheds, and laboring under the various and cruel disorders of Dysentery, Bilious, Putrid Fevers, and the effects of a Confluent Small Pox. To attend this large number we have four surgeons and four mates, exclusive of myself, and our little shop doth not afford a grain of Jalap, Ipecacuanha, Bark, Salts, Opium, and sundry other capital articles, and nothing of the kind to be had in this quarter. In this dilemma our inventions are exhausted for succedaneums; but we shall go on doing the best we can in hopes of speedy supply."

This letter was addressed to the Director-General.[2]

The spirit which actuated these gentlemen in the cause of

he thus saved the archives from which we have been enabled to compile much of our information.

[1] Dr. Rush was elected to Congress after the Declaration of Independence, for the express purpose of signing it.

[2] It is among the papers of Dr. Potts, in the collection of the Historica Society of Pennsylvania.

their country may be learned from the following passage of a letter of Dr. Thomas Bond, Sen., to the Council of Safety, December 4th, 1776, giving his views in relation to the organization of military hospitals:—

"When I see so many of my friends and valuable fellow-citizens exposing themselves to the horrors of war, I think it my indispensable duty to make them a tender of the best services in my power, upon the condition that I can have the joint assistance of my son in the great undertaking, who I am certain you will find on enquiry has already distinguished himself in this Department. As I am told many of the sick are near the City, the sooner this matter is concluded the better."[1]

Dr. Bond at that time was over sixty years of age.

The privations and hardships which were suffered, the difficulties and vexations which were encountered, and the sacrifices submitted to by the medical officers during the War of Independence have been graphically depicted in his Military Journal by that venerable sharer of them, the late Dr. Thatcher. When, on the conclusion of the contest, the services of these medical patriots were no further needed, they returned to their civil posts, imbued with knowledge and experience, from which in after life they derived the benefit.

So far as the concerns of the College were affected, it required time before they assumed their former tranquillity and regularity. The account of the next ten years is an eventful one in the history of the Medical School, until the University was placed on its present secure foundation.

The Institution, being of colonial origin and patronage, needed, as was thought, thorough reorganization to place it upon a basis harmonizing with the regime of Independence. The removal of constraint by a hostile force permitted it to be re-established under different auspices. It was alleged further that disaffection existed on the part of some of the members of the Board of Trustees to the new Government. By an Act of the Legislature, November 27th, 1779, the charter

[1] Pa. Archives, vol. v. p. 89. Dr. Thomas Bond, Jr., here referred to, was Purveyor of the General Hospital.

of the College was abrogated, its officers removed, and its property transferred to a new institution. This decree of the Legislature had been anticipated by authoritative interposition.[1]

From the Minutes of June 1st, 1779, we learn that Mr. John Foulke was examined for the Bachelor's Degree, but after the mandamus was issued, the Commencement was interdicted by the President of the Executive Council of the State. This was the beginning of the difficulty which eventuated in the action of the Legislature above referred to. Still, the movement must have been more sudden than was expected, inasmuch as we find the following notice in the "Pennsylvania Gazette":—

"College of Philadelphia, October 24, 1779. The Lectures on the different branches of Medicine will begin on the first Monday of December."

The institution which superseded the College of Philadelphia was entitled the "UNIVERSITY OF THE STATE OF PENNSYLVANIA," to which were given more extended educational privileges and larger endowment.[2] The Trustees at once directed attention to the Medical Department in common with others, and it appears from the Minutes of the Board that on December 8th, 1779, it was—

"Resolved, that Dr. Shippen, sen., Dr. Bond, and Dr. Hutchinson be a Committee to inquire into the state of the late Medical School, as it stood in the late College, and what is the establishment thereof in Foreign Universities; and to digest a plan, for the consideration of the Board, for establishing the school on the most respectable footing. That the said Com-

[1] For an exposition of the circumstances which led to this act on the part of the Legislature, and for the full discussion of the merits of the transaction, we must refer to the History of the University of Pennsylvania by George B. Wood, M. D., in the 3d vol. of Memoirs of the Historical Society of Pa. Also to the Pa. Gazette, March and April, 1788, for a Remonstrance against the Act of Assembly of 1779 and an exposition of the origin of the College. In the same paper are "Reasons for abrogating the Charter of the College from Minutes of the Council of Censors," August and September, 1784. Also an Exposition of the Controversy between the College and the University, March, 1789.

[2] We have seen a diploma of Bachelor of Medicine of 1785, in which the title University of Philadelphia is used. The title stated in the text is given in the Book of Charters and Statutes.

mittee do request the several Medical Professors in the mean time to proceed in their lectures as heretofore."

When the University was organized upon the basis mentioned, the Rev. John Ewing, D.D., was appointed Provost. In this office he remained until his death in 1802. Dr. Ewing continued the practice of delivering Lectures upon Natural Philosophy. These were published, in 1809, in a volume edited by Prof. Robert Patterson, who appended to them a Life of the author.

On May 11th, 1780, it was resolved, by the Board of Trustees of the University, "that the former Medical Professors be requested to examine such candidates as shall apply to them;" and on June 27th it was "agreed that on the present occasion the late Medical Professors take their seats." This occasion was in connection with the preliminaries for the graduation of the classes. The Commencement was held, and the Degree of Bachelor of Medicine conferred on William W. Smith and Ebenezer Crossby, and that of Doctor of Medicine on David Ramsay.[1]

Dr. Shippen was the only one of the Professors who at once accepted the position he had held in the Faculty of the College; and an agreement not being effected with the others, the Chair of Practice was offered to Dr. Hutchinson, June 25th, 1781, and then, April 22d, 1782, to Dr. James McClurg, of Virginia. The Chair of Chemistry was, Nov. 7th, 1781, offered to Dr. Hutchinson, and on April 2d, 1782, the Chair of Materia Medica was offered to Dr. James Tilton, of Delaware. In each case the honor was respectfully declined. On April 22d, 1782, Mr. William Bartram was appointed Professor of Botany.

The Trustees evidently labored under embarrassment and difficulties which had to be met by temporary expedients, as is shown by the following public advertisement:—

"At a Meeting of the Trustees of the University of Pennsylvania, on Wednesday, 31st of October, 1781, Resolved

[1] The Historian of the United States. He wrote a Life of Dr. Rush, which has been quoted. The words in which the mandamus is expressed are the following: "And the Degree of Doctor of Medicine on David Ramsay, now prisoner with the enemy."

unanimously that Dr. Bond be requested to unite Lectures on the Theory and Practice of Physic with his course of Clinical Lectures, the ensuing season, until such time as a Professor in that Branch of Medicine be appointed and undertake the business." Dr. Bond, who was present at the meeting, expressed his readiness to do so.

It was further "Resolved, that Wednesday next be appointed for the election of Professors of Materia Medica, the Theory and Practice of Physic, Chemistry, and Botany." This attempt to fill the Chairs did not succeed, and in this state of irregularity medical instruction continued for three years. In the "Pennsylvania Gazette" of Nov. 14th, 1781, Dr. Rush announced a course of Lectures upon Chemistry and the Practice of Physic, "to begin on Monday next, at three o'clock in the afternoon." There was no interruption, however, to the graduation of candidates each year. At the Commencement of 1782, eight students were graduated M. B., and the Honorary Degree of Doctor of Medicine was conferred upon Joannes Franciscus De Coste, Physician-General of the French Army in America, and also upon Maria Bernardus Borgetta, an eminent physician of the same army; and Fiacer Robillard, a Senior Surgeon in the French Army, received the Degree of Master of Arts.

In November, 1783, an election anew took place, and the former status of the Professors was accepted by them. The lectures then appear to have been conducted with some uniformity.

Although the University continued to perform its part successfully for ten years from the time of its foundation, the dissatisfaction on the part of the friends of the former College had only slumbered. The Act of the Legislature was regarded by them as unjust and unconstitutional, and their efforts in procuring its repeal, and in the restoration to the College of the powers and property possessed by it originally, were finally crowned with success. The new institution retained its position as a University, with its endowment from confiscated estates. The Act of repeal is dated March 6th, 1789.[1]

[1] Charters and Statutes of the University of Pennsylvania.

It is a circumstance worthy of record that, in consequence of his absence abroad for so many years in the service of the Colonies, Dr. Franklin, after the foundation of the College, "had but few opportunities of taking any further active part in the affairs of the Seminary, until his final return in the year 1785, when he found its charters violated, and his ancient colleagues, the original founders, deprived of their trust by an act of the Legislature; and although his own name had been inserted amongst the new Trustees, yet he declined to take his seat among them, or any concern in the management of their affairs, till the institution was restored by law to its original owners. He then assembled his old colleagues at his own house, and, being chosen their President, all their future meetings were at his request held there till within a few months of his death, April 17th, 1790, when, with reluctance, and at their desire, lest he might be too much injured by his attention to their business, he suffered them to meet at the College."[1]

When the restitution of its rights was made to the College, the Trustees proceeded to the organization of the Schools. The Rev. Dr. Smith was restored to the office of Provost; and with respect to the Medical Professors, the Minutes of the Board inform us, dated March 13th, 1789, that

"The Committee who were appointed to wait upon the Professors and Masters formerly deprived, but now restored, made report that they had waited upon the following Professors in the Medical Schools, formerly instituted under the College, viz:—

Dr. WILLIAM SHIPPEN, Jr., Professor of Anatomy, &c.
" ADAM KUHN, Professor of Botany and Materia Medica.
" BENJAMIN RUSH, Professor of Chemistry.

"Who severally expressed their satisfaction upon the renewal of their connection with the Trustees of the College, and their restoration to their Professorships under them, in discharging the duties of which as heretofore it was their wish and intention to continue.

[1] Life of Dr. Franklin by Dr. Stuber, Duo. ed., N. Y. 1825. See also remonstrance referred to, "Pennsylvania Gazette."

"Dr. John Morgan, Professor of the Theory and Practice of Physic, not being at present within the State, the Trustees consider him reinstated and entitled to continue in his office until his return home, when he is to be waited on by the Committee in like manner as the other Professors have been, in order to know whether it is his intention to resume the exercise of his Professorship as heretofore."

In October, 1789, Dr. Morgan died at the age of fifty-four years. It is stated that he had retired very much from active life, actuated by chagrin at his treatment by Congress, in removing him from the post of Director General, upon charges from which he was ultimately exonerated. That Dr. Morgan had lost his interest in the duties of his Professorship, would appear from a communication from the Professors to the Trustees of the University in December, 1788, in these terms: "that the Faculty are of opinion that the Medical School suffers for want of a course of lectures being delivered annually on the Theory and Practice of Physic."

On the 24th of October, 1789, Dr. Rush was elected to the Chair of Theory and Practice in the College; and on the 29th of October, Dr. Kuhn resigned his Professorship and took that of Practice in the University, to which he was elected November 4th, 1789. "At the same time a letter was read from Dr. Wistar recommending lectures on the Institutes of Physic, to be in connection with those of Chemistry by the Professor of the latter branch, which was agreed to."

On November 17th, 1789, Dr. Caspar Wistar was unanimously elected Professor of Chemistry (to succeed Dr. Rush) and of the Institutes of Physic. Dr. Samuel Griffitts was unanimously elected Professor of Materia Medica and Pharmacy; and Dr. Benjamin Smith Barton was unanimously elected Professor of Natural History and Botany.

The Medical School of the College having been thus reorganized, and that of the University continuing in full operation, a rivalship naturally sprung up between the two institutions, or rather it may be called an antagonism, which was singular from the fact of an inosculation existing in the person of Dr. Shippen, who held his Professorship in both.

It has been seen that Dr. Kuhn had joined the University,

as Professor of the Theory and Practice, and on the 19th of December, 1789, Dr. James Hutchinson, an active member of the Board of Trustees, was elected Professor of Chemistry and Materia Medica in that institution.

When, in 1789, the College was restored to its former position, with possession of its functions and privileges, it was determined no longer to confer the degree of Bachelor of Medicine. The reason for this course is thus stated: "It having been considered that it would not be for the honor of the College or the advancement of sound literature to continue the degree of Bachelor of Medicine, lest young and inexperienced men under the sanction of that degree and of their Collegiate education, assuming the name of Doctor, might be tempted to impose upon the public, by a too early Practice, it has, therefore, been determined that the Degree of Doctor in Medicine shall be the only medical degree conferred in this Seminary."[1]

In point of fact it would appear from the early records that, as was anticipated, comparatively few of the primary graduates ever applied for the doctor's degree, and even these bore no proportion to the whole class of students in attendance, most of them going into active service without the evidence of qualification. With regard to the system of degrees established, Dr. Rush, in his correspondence with Dr. Morgan, as early as 1768, makes this comment: "I have read the laws you have established with regard to the conferring degrees in Physic, and have shown them to several gentlemen in this place (Edinburgh) who, upon the whole, approve of them. Some of them have thought that conferring Bachelors' Degrees in Physic would tend to depreciate their value, as few young men would ever have leisure enough after they began to practise, to return a second time to the College in order to write a Thesis or go through the other necessary forms, previous to being admitted Doctors of Physic. Upon this account they have proposed that no one should be admitted to the physical honors, until he had studied there two or three years, and afterwards published a Thesis. But you who are upon the spot can best judge of the propriety of the

[1] Pennsylvania Gazette.

regulation." The correctness of the prognostication contained in the foregoing extract was shown by the result, and led to the abandonment of the first degree.

On November 17th, 1789, the following rules respecting a medical education having been passed by the Trustees of the College, and ordered to be made public for the information of those students who desired the degree of Doctor of Physic, were published in the "Pennsylvania Gazette":—

"1. No person shall be received as a Candidate for the degree of Doctor of Medicine until he has arrived at the age of twenty-one years, and has applied himself to the study of Medicine in the College for at least two years. Those students, candidates who reside in the City of Philadelphia, or within five miles thereof, must have been the pupils of some respectable practitioner for the space of three years, and those who may come from the country, and from any greater distance than five miles, must have studied with some reputable physician there for at least two years.

"2. Every candidate shall have regularly attended the lectures of the following Professors, viz., of Anatomy and Surgery; of Chymistry and the Institutes of Medicine; of Materia Medica and Pharmacy; of the Theory and Practice of Medicine; the Botanical lectures of the Professor of Natural History and Botany; and a course of lectures on Natural and Experimental Philosophy.

"3. Each Candidate shall signify his intention of graduating to the Dean of the Medical Faculty, at least two months before the time of graduation, after which he shall be examined privately by the Professors of the different branches of medicine. If remitted to his studies, the Professors shall hold themselves bound not to divulge the same; but if he is judged to be properly qualified, a medical question and a case shall then be proposed to him, the answer and treatment of which he shall submit to the Medical Professors. If these performances are approved, the Candidate shall then be admitted to a public examination before the Trustees, the Provost, Vice Provost, Professors and Students of the College; after which he shall offer to the inspection of each of the Medical Professors a Thesis, written in the Latin or English

Language (at his own option) on a medical subject. This Thesis, approved of, is to be printed at the expense of the Candidate, and defended from such objections as may be made to it by the Medical Professors, at a Commencement to be held for the purpose of conferring degrees, on the first Wednesday of June every year.

"Bachelors in Medicine who wish to be admitted to the Degree of Doctor in Medicine, shall publish and defend a Thesis agreeably to the rules above mentioned.

"The different Medical Lectures shall commence annually on the first Monday in November, the lectures in Natural and Experimental Philosophy about the same time, and the lectures on Botany on the first Monday in April.

"BENJAMIN FRANKLIN,
President of the Board of Trustees.

WILLIAM SMITH,
Provost of the College and Secretary of Board of Trustees."

The University continued the practice of conferring two degrees; in other respects its rules and requirements were very analogous to those of the College.

The state of things exhibited with respect to medical teaching by two institutions, in so contracted a sphere as the city of Philadelphia then offered, could not be otherwise than unsatisfactory. This appears clearly from a statement made upon the Minutes of the University, April 6, 1791, being part of a report on the condition of the Schools, to wit: "Of the Medical students who have attended the lectures of the different Professors, since the separation of the College, it cannot be accurately ascertained how many are attached to this Seminary, with a view to graduation in it.

"The Professor of Anatomy, who is also Professor of Anatomy under the College, has been attended in his last course of lectures, which commenced in November, 1790, by *one hundred and four*. About *twenty* of these have not attended the lectures of any other of the Professors of either Seminary. *Fifty-five*, however, have attended the lectures of the other Medical Professors of the University with a view to graduation in it."

The field for two establishments was proved to be too restricted, and after party spirit had subsided, and faction had been lulled to rest, a calm appreciation of the circumstances then existing led to the conclusion, that in union there would be additional strength and prosperity. In speaking of the condition of affairs that existed, the late Chief Justice Tilghman refers to the part that was taken by Dr. Wistar in bringing about the union of conflicting interests. "Philadelphia had then the misfortune to be divided between two rival schools, the Faculty of Medicine of the College and that of the University of Pennsylvania. He saw and lamented the consequences of this division. It was his wish to unite in one great institution the talents of the city. But finding that the period of union had not yet arrived, he accepted the Professorship offered to him by the College, in order to preserve an influence to be exerted at the proper season, and in this purpose he was not disappointed, for he had the satisfaction of contributing largely to the much desired union which was afterwards effected."[1]

An amicable adjustment was brought about, followed by an Act of the Legislature, September 30th, 1791, passed in accordance with petitions from the two schools, setting forth the terms of the agreement upon which they had decided to unite. It was agreed that the name of the Institution should be "THE UNIVERSITY OF PENNSYLVANIA," and that it should be located in the city of Philadelphia. Of this name her graduates have sufficient reason to be proud.

In the Introductory Lecture delivered by Dr. Rush in the month of November, 1791, he thus expresses himself upon the subject of the union: "I should do violence to my feelings should I proceed to the subjects of the ensuing course of lectures, without first congratulating you upon the union of the two Medical Schools of Philadelphia, under a Charter founded upon the most liberal concessions by the gentlemen who projected it, and upon the purest principles of patriotism

[1] An Eulogium in commemoration of Dr. Caspar Wistar, late President of the American Philosophical Society, &c., delivered before the Society, March 11th, 1818, by the Hon. William Tilghman, Chief Justice of the Supreme Court of Pennsylvania, &c., Philadelphia, 1818, p. 20.

in the Legislature of our State. By means of this event, the ancient harmony of the different professors of medicine will be restored, and their united efforts will be devoted, with accumulated force, towards the advancement of our Science."

By the arrangement entered into, provision was made for the employment of all the Professors of the two previously existing Faculties, according to the especial predilections and fitness of each incumbent, although no doubt in the spirit of compromise some sacrifices of tastes and wishes were made highly honorable to the parties interested.

With this new era the Announcement of the Professors and their subjects was as follows:—

| | |
|---|---|
| Anatomy, Surgery, and Midwifery, | WILLIAM SHIPPEN, M. D.<br>CASPAR WISTAR, M.D., Adjunct. |
| Theory and Practice of Medicine, | ADAM KUHN, M.D. |
| Institutes of Medicine and Clinical Medicine, | BENJAMIN RUSH, M. D. |
| Chemistry, | JAMES HUTCHINSON, M. D. |
| Materia Medica and Pharmacy, | SAMUEL P. GRIFFITTS, M.D. |
| Botany and Natural History, | BENJ. SMITH BARTON, M.D. |

The elections according to the order given were made on the 23d of January, 1792. Dr. John Ewing was elected on April 3d, 1792, Professor of Natural and Experimental Philosophy, and on the 26th was again chosen Provost.

At the time the Medical Professors were elected, it was "Resolved, that it shall not be essential to the obtaining a Degree in Medicine for the student to attend the Professor of Natural History and Botany." With this exception the "Rules respecting a medical education and the conferring of Degrees in Medicine" were similar to those which have been given as adopted by the College. The Degree of Bachelor of Medicine was dropped by the University when thus reorganized, and the Doctorate alone conferred. In this particular the practice of the University of Edinburgh was followed.

## CHAPTER VIII.

Death of Dr. Hutchinson—Sketch of his life—Election of Dr. Woodhouse to the professorship of chemistry—Resignation of Dr. Griffitts—Sketch of his life—Election of Dr. Barton to the chair of materia medica—Resignation of Dr. Kuhn and election of Dr. Rush to the chair of practice—Creation of the chair of surgery and election of Dr. Physick Professor—First recognition of the ad eundem footing—Petition to the legislature with respect to irregular practitioners—Death of Dr. Shippen and election of Dr. Wistar—Death of Dr. Woodhouse and sketch of his life—Election of Dr. Coxe to the chair of chemistry—Opinion of the faculty with respect to chemistry.

NOT long after the coalition of the medical schools and the arrangement of the Faculties under the auspices of the University, a change occurred in the chair of chemistry. Its incumbent, Dr. Hutchinson, died in the autumn of 1793, of the epidemic yellow fever.

Dr. James Hutchinson was born in 1752, in Bucks County, Pa. He was educated at the College of Philadelphia, and graduated with the first honors of his class. He commenced the study of medicine with Dr. Cadwalader Evans, and attended the medical lectures of the college.[1] In the year 1774, at the time he graduated Bachelor of Medicine, the trustees presented him with a gold medal for his superior knowledge in chemistry. On one side of this medal was represented a circle of laurel, with the inscription on the exergue, "Jacobus Hutchinson 1774." On the reverse a retort; on the exergue, "Naturæ artisque arcana retexi, Col. Phil."

Dr. Hutchinson subsequently went to London and continued his medical education under the protection and guidance of Dr. Fothergill. It is stated by his biographer that "while pursuing his studies in Europe the disputes between

[1] The tickets of admission to the lectures of the professors are in possession of his grandson, Dr. James Hutchinson. They are *written* on the back of "Playing Cards."

England and the American Colonies were approaching a crisis, which he saw must end in an open rupture. The prospect of this event hastened his return to his native country, the cause of which he warmly espoused. He returned home by way of France, and was entrusted with important despatches from Dr. Franklin, the American Minister there, to the Congress of the United States. When near the American coast, the ship in which he was a passenger was chased by a British armed vessel, and being anxious to save the despatches, he left the vessel in an open boat under a heavy fire from the enemy and landed safely. A short time after he left the vessel, she was captured by the enemy in sight, and he lost everything he had, including a fine medical library collected in England and France." Dr. Hutchinson served in the army during the Revolution, and was especially interested in public affairs. In a vindication of himself from the charge of receiving pay to which he was not entitled, published in the "Pennsylvania Journal," Feb. 6, 1782, Dr. Hutchinson gave an account of the services rendered by him during the war. In this he states that he was in the employment of the United States for upwards of one year, and of the State of Pennsylvania from the latter part of 1778 till the beginning of February 1781. While in the Continental service, he had a commission as the Senior Surgeon to the Flying Hospital in the Middle Department, and with only six assistants inoculated 3496 men, while the army lay at Valley Forge. When the army moved across the North River, after the battle of Monmouth, having no duty to perform in his own department, and desirous of being useful to his country, he went to Rhode Island as a volunteer in the expedition against that place under General Sullivan. Soon afterwards he resigned his commission. On his return to Philadelphia he was appointed Surgeon to the State Navy. The emoluments derived for medical services may be learned from the following statement: "The pay annexed to this station (state navy) was three continental dollars and five rations per day. The duty consisted in taking care of the officers and men belonging to the gallies, and of the Militia who were occasionally at Fort Mifflin. This, though considerable, was performed without an assistant." The first pay he received from the State was in March, 1779, when it was equal to *three shillings* specie per

day, and thus gradually decreasing as continental money depreciated till it was reduced to about *three pence or four pence.* In Feb. 1781, there being no longer need of his services, he was discharged.[1]

In 1779, when the University superseded the College, Dr. Hutchinson was appointed one of the Trustees by the Legislature, and took great interest in its prosperity. In 1781 he refused the chair of practice, and in 1783 that of chemistry, influenced doubtless by the wish to see them filled by the previous incumbents of the College; and further, not to embarrass the organization of the medical faculty, in the existing unpleasant state of affairs occasioned by the abrogation of the College charter.

In 1789, when the restitution of the rights of the College was effected, he accepted the Chair of Materia Medica and Chemistry in the University; and on the union of the schools, in 1791, was chosen the Professor of Chemistry. The further arrangement of the Professorships concentrated the medical talents of the city. In this result he heartily cooperated.

At the time of his death he was one of the Secretaries of the Philosophical Society, and for fifteen years had been one of the Physicians of the Pennsylvania Hospital.

The Chair of Chemistry, left vacant by the death of Dr. Hutchinson, was conferred, January 7th, 1794, on Dr. John Carson, a member of the Board of Trustees, but this gentleman dying before entering upon the duties, the position was offered to Dr. Priestley, by whom it was declined.

The reasons assigned by Dr. Priestley for the non-acceptance of the appointment for which he was so eminently qualified, were that his views were directed to a country life as best calculated to permit indulgence in his tastes, and to aid him, by its seclusion, in his pursuits, and that this course would be of further advantage to himself and wife in consequence of a weak state of health. He therefore left the city, and settled at Northumberland, Pa.[2]

[1] Pa. Journal, Feb. 6, 1782.

[2] Memoirs of Dr. Joseph Priestley, to the year 1795, written by himself, with a continuation to the time of his decease, by his son Joseph Priestley. Northumberland, 1806. Vol. i. p. 163.

On July 7th, 1795, the vacant Chair of Chemistry was filled by the appointment of Dr. James Woodhouse, who in the following session commenced his course of lectures.

In 1796 Dr. Griffitts resigned the Chair of Materia Medica.

Dr. Samuel Powell Griffitts was a prominent member of the Society of Friends. He was born in Philadelphia in 1759. Having been classically educated at the College of Philadelphia, he studied medicine with Dr. Kuhn. He attended lectures during the troubled times of the Revolution, and graduated Bachelor of Medicine in the University, July 4th, 1781. He then proceeded to Europe, but, on account of the war existing between Great Britain and the United Colonies, went first to France. After spending some time in attendance upon the lectures and hospitals of Paris, he went to Montpellier, where, in the winter of 1782–83, he attended a course of lectures. An attraction of this celebrated school at that time was the distinguished medical philosopher Barthez. The following year was spent in London and at the Medical School of Edinburgh, when, after an absence of three years, he established himself in his native city.

The first public enterprise in which he was engaged was the foundation of the Charity which has operated so beneficially in relieving the miseries of the poor, known as the "Philadelphia Dispensary." This institution went into operation in 1786; and, either as one of its Physicians or in the capacity of Secretary of the Board of Managers, his services were given to it till the close of his useful life.[1]

[1] The Attending Physicians and Surgeons were Dr. Samuel Powell Griffitts, Dr. James Hall, Dr. William Clarkson, Dr. John Morris, Dr. John Carson, and Dr. Caspar Wistar.

The Consulting Physicians were Dr. Jones, Dr. Wm. Shippen, Jr., Dr. Adam Kuhn, and Dr. Benjamin Rush.

To promote the aims of this institution, various means were adopted. From the "Pennsylvania Gazette" of Feb. 8th, 1786, we obtain the following notice.—

"We are happy to inform the Public that Dr. Moyes has kindly offered to deliver Lectures in the Hall of the University, upon the most interesting and useful parts of Chemistry and Natural Philosophy, after he has finished the present course, at half a dollar a ticket for each lecture, for the *benefit of this charity*."

The Dispensary was opened in STRAWBERRY ALLEY.

Dr. Griffitts' connection with the College and University continued during six sessions, and throughout this period his lectures are said to have "evinced great industry in the acquisition of useful materials, method and perspicuity in their arrangement, and zeal for the advancement of his class in solid information. But the situation of a public lecturer was not altogether congenial to his feelings, which were most gratified by an active discharge of the less conspicuous duties of life. Perhaps, too, the disinclination which he always manifested to hold any place of emolument may have exercised some influence in producing his resignation of a chair which was every year becoming more profitable, and even at that period conferred one of the highest honors within the reach of the profession."[1]

In consequence of his early studies in connection with Materia Medica and Pharmacy, Dr. Griffitts was deeply interested in the formation of a National Pharmacopœia. In June, 1788, he was placed on a Committee of the College of Physicians to form a Pharmacopœia for the use of the College, but this undertaking was permitted to slumber until 1820, when the College united with other societies for the formation of our present national work. Dr. Griffitts served upon the Committee then appointed, and for this duty his former experience well qualified him.[2] He died in 1826.

Upon the resignation of Dr. Griffitts, Dr. Benjamin Smith Barton succeeded to the Professorship of Materia Medica, still retaining that of Natural History.

After twenty nine years of active service in the School of Medicine, Dr. Kuhn retired from the Chair of Practice in

[1] Memoir of Dr. Samuel Powell Griffitts, by Governeur Emerson, M. D. North American Medical and Surgical Journal, vol. iii. p. 151, 1827.

[2] In 1782 a small collection of receipts was published by Dr. William Brown, more particularly intended for the use of the Army. In 1788 the following action was taken by the College of Physicians: "On Motion, ordered that a Committee of eight, viz., Drs. Redman, Jones, Kuhn, Shippen, Rush, Griffitts, Wistar, and Hutchinson, be appointed to form a Pharmacopœia for the use of the College." The U. S. Pharmacopœia was first issued in 1820. In the Life of Dr. Thos. T. Hewson by Dr. Franklin Bache, and in the Life of Dr. Bache by Dr. G. B. Wood, will be found an interesting account of this work.

1797. He continued to practise medicine, however, until within a few years of his death, which occurred in 1819. In his person, movements, and manners, as well as in his mental constitution, Dr. Kuhn was rigid, stately, and punctilious, and has been represented as a "true type of the Old School of Society."

Upon the resignation of Dr. Kuhn, the duties of his place were performed by Dr. Rush until the year 1805, when the two Chairs—of the Theory and Practice of Medicine, and of Institutes and Clinical Medicine—being united, he was elected unanimously to the Professorship.

At the same time a change was deemed to be expedient in the Chair which had been held so long by Dr. Shippen. Surgery, during this period, had remained in association with Anatomy and Obstetrics, when Dr. Physick presented himself, the vindicator of its just claims, and the representative man of its dignity and importance. He was unanimously elected Professor of that branch in the University of Pennsylvania on June 4th, 1805. It may be stated that the Chair of Surgery was created for him and by him.[1]

In 1805 the first action was taken with respect to the position of the University relative to other schools that had arisen in the United States. It appears from the Minutes of the Faculty, December 12th, that the subject was considered as a special one. It is the first time that any action was taken upon the question of the footing upon which students from other schools should be admitted, as follows:—

[1] On Dr. Physick's election, it was Resolved by the Board of Trustees "That it shall be essential to obtaining a Degree in Medicine for the students to attend the Lectures of the Professor of Surgery." Minutes of the Board.

In the University of Edinburgh Surgery was not early taught as a distinct subject; "and even so late as 1777, when the College of Surgeons petitioned the patrons to institute a separate Professorship of Surgery in the University, they were opposed by Monro, then Professor of Anatomy, as interfering with his subject; and he succeeded in getting his commission altered, so as to include Surgery, which was thus made a mere adjunct of the anatomical course, and continued to be so taught (if it could be said to be taught) until the institution of the chair of Surgery in 1831."—(The Edinburgh School of Surgery; an Introductory Lecture by James Spence, F. R. C. S. E., Professor in the University of Edinburgh. Ed. Med. Journ., vol. x. Part I. p. 482.)

"It was agreed that Daniel Newcomb, who had attended one course of Medical Lectures in the University of Cambridge, Mass., and another course of ten weeks in the University of Dartmouth, N. H., and had also studied medicine under the care of a respectable practitioner two years, should be admitted to an examination as a candidate for the Degree of M. D., after the expiration of the present session, during which he has attended each of the Professors."

In 1806, the subject of irregular practitioners was taken up by the Medical Faculty, and a petition laid before the Legislature in the following terms:—

"That many lives of the citizens of Pennsylvania are yearly lost by their being committed to the care of men, not qualified by education or talents to practise medicine.

"That this calamity has been very much lessened in several of our sister states by Laws to prevent any one exercising the profession of a Physician or Surgeon, who is not a graduate in some University or College, in which the branches of Medicine are taught by different professors, in an extensive manner, or who has not been approved after a previous examination by persons qualified for that purpose and appointed by the Government. Your memorialists therefore humbly solicit that a similar law be passed in Pennsylvania. They do not wish it to have a retrospective operation, but request that its obligations and penalties take place from the date of the law."

This, like every subsequent effort on the part of the Profession to regulate its practice in accordance with enlightened legislation, had no influence with our political rulers. Indeed, the time has not yet arrived when restrictions upon assumptive claims to skill or wisdom can be tolerated by the community, the members of which must either suffer, or protect themselves by their own intelligence and discrimination between true and false claimants for public patronage.

The year 1808 was marked by the death of Dr. Shippen, whose career had been a distinguished one. Nature had been uncommonly lavish in his form and endowments. "His person was graceful, his manners polished, his conversation various, and the tones of his voice singularly sweet and conciliatory.

In his intercourse with society he was gay without levity, and dignified without harshness or austerity." With respect to his powers of teaching, it is stated that those pupils who went abroad "declared that they had met with no man who was superior to Dr. Shippen as a demonstrator of anatomy, and very few, indeed, who were equal to him." "In explaining the success of Dr. Shippen in teaching anatomy, we may take into view another faculty which he also exerted with great effect. He went through the subject of each preceding lecture by interrogation instead of recapitulation—thus fixing the attention of the students; and his manner was so happy that this grave process proceeded like a piece of amusement. His irony was of a delicate kind, and so blended with humor that he could repress forwardness and take notice of negligence so as to admonish his class without too much exposing the defaulter."[1]

In speaking of Dr. William Hunter, it was remarked by Dr. James that "it was under the tuition of this truly ingenious anatomist and physician that the late amiable and sagacious Professor of Anatomy and Midwifery in this University laid the foundation of that celebrity which many years of extensive professional employment nurtured and matured. It was by forming himself after this model that, in the delivery of his interesting lectures, he at once delighted the gay and instructed the grave by the amenity of his manner and the utility of his practical precepts.

> 'Methinks I hear him now, his plausive words
> He scattered not in ears, but grafted them,
> To grow there and to bear.' "[2]

The merits and reputation of Dr. Shippen were recognized abroad as well as at home. From the "Pennsylvania Chronicle" of May 2, 1768, the subjoined notice has been taken: "Dr. William Shippen, Jr. of this City, was on the third of February last unanimously elected a Fellow of the Royal College

[1] Wistar's Eulogium.

[2] MS. Lecture, Introductory to his Course on Obstetrics, 1810, by Thomas C. James, M. D., etc.

of Physicians of Edinburgh." In 1805 he was chosen President of the College of Physicians of Philadelphia, succeeding, as the second President, the venerable Dr. John Redman. This office he held until his death.

On the decease of Dr. Shippen, the full duties of the Professorship were assumed by Dr. Wistar, by whom for some time previous they had been performed, teaching during the succeeding years both anatomy and midwifery.

In 1809, a change was brought about in the Chair of Chemistry by the death of Dr. Woodhouse. This gentleman was born in Philadelphia in 1770, and was educated at the University, from which, in 1787, he received the degree of A. B. He studied medicine with Dr. Rush, and graduated in 1792, as Doctor of Medicine, at the first Commencement after the union of the Schools. His Inaugural Essay was upon the "Persimmon." Before his graduation he had served in the army as a medical assistant, and took part in the unfortunate campaign of General St. Clair against the Indians, during which he was exposed to the risk of massacre which befell the army of that commander.

The attention of Dr. Woodhouse had been especially directed to chemical pursuits, in which he had acquired some reputation, and hence his election in 1795, under the circumstances that have been detailed, although he had as his competitor so able a chemist as Dr. Adam Seybert. Immediately upon his appointment, it is stated, "he went to work with zeal, and delivered a course of lectures with great applause; and as almost the whole of his time was devoted to the study of his favorite science, he added to the number, variety, and brilliancy of his experiments."[1] Dr. Caldwell, who was an attendant upon his lectures, informs us that he became in a short time so expert and successful an experimenter as to receive from Dr. Priestley, who had just arrived in the United States, and had declined the appointment, very flattering compliments upon his dexterity and skill. That distinguished gentleman, on seeing him engaged in the business of his laboratory, did not hesitate to pronounce him equal, as

[1] Thatcher's Lives, p. 222.

an experimenter, to any one he had seen either in England or France.[1] His enthusiasm was unbounded, and his style of speaking of his subject sentimentally impressive. He introduced to his juvenile auditors the science by the term of "Miss Chemistry," and strenuously urged fidelity and devotion to her as a chaste and eminently attractive mistress. Dr. Woodhouse adhered to the doctrine of Priestley, and may be said to have been the last of the American chemical philosophers entertaining the belief in Phlogiston. His published contributions to chemical science were numerous.

Dr. Woodhouse was succeeded by Dr. John Redman Coxe, who for two years previously had been a member of the Board of Trustees. The date of his election was July 10, 1809.

While the election of a successor to Dr. Woodhouse was pending, the Medical Faculty took decided ground with reference to the qualifications needed in the Professor of Chemistry of a Medical School. Their views are thus presented in a letter to Chief Justice McKeen, one of the Trustees, at his request.

"It is particularly expedient that the Professor of Chemistry should have a full and extensive knowledge of Medicine, because very many valuable articles of the Materia Medica are derived from Chemistry; and the nature of these articles can only be understood by a person who has a competent knowledge both of Chemistry and Medicine. The students of Medicine, who almost exclusively support the Professorship of Chemistry, are induced to do so in consequence of its application to Pharmacy and the different branches of Medicine, viz., Physiology, Pathology, Therapeutics, Materia Medica, and the Practice of Physic. No man can teach Pharmacy unless he has had some knowledge of the Practice of Medicine, and the application of Chemistry to Physiology; and the other branches of medical science above mentioned can only be taught by a chemist who understands them.

"The teaching of Chemistry in this University has hitherto been confined to the Professors of Medicine; and the success

[1] Autobiography of Dr. Charles Caldwell.

attending this arrangement appears to us good reason for continuing it.

"In addition to this it may be observed, that we believe Chemistry is taught by Medical Professors in all the Universities of Europe, that of Upsal excepted, where the late Sir T. Bergman was Chemical Professor. But in Sweden Chemistry is cultivated principally on account of its application to Mineralogy, and the Chemical Professors are not members of the Medical Faculty.

"We beg leave again to suggest that our Professor of Chemistry has always taken an active part in the business of the Medical Faculty, judging of the qualifications of the respective candidates in every branch of their profession, and examining Inaugural Theses on subjects relating to Medicine."

The letter was signed by Drs. Rush, Wistar, Barton, and Physick.

This expression of opinion was called for by a resolution pending before the Board of Trustees, that the Professorships of Natural History, Botany, and Chemistry, "should not hereafter be considered as pertaining to the Medical Department of the Faculty, although gentlemen of the medical profession are and shall continue eligible to those professorships." The proposition was not entertained.

## CHAPTER IX.

Separation of Obstetrics from the Chair of Anatomy—Estimation of this branch in Europe, and its elevation to an equal position with other branches in the Medical Schools—Dr. Shippen's endeavors to improve its condition in America—Election of Dr. James to the Chair of Obstetrics in the University of Pennsylvania—The tardy admission of the subject to an equality with others—Mode of examining for degrees—New By-Laws for the regulation of the Medical Department—Rules for graduation.

In 1810 a separation was effected between the two branches of Anatomy and Obstetrics, which had continued in the hands of a single Professor from the origin of the School of Medicine —a long period of forty-five years. This was owing more to the ignorance of the community at large with respect to the utility of Obstetrics than to the want of appreciation of its importance on the part of the profession. "Indeed, the public had to be educated to the opinion that science and extensive medical knowledge were required to conduct 'labor' with safety and success, as much as surgical operations or the treatment of disease."

In Europe, Obstetrics, as an art and science, was forced to disenthral itself from prejudice and disesteem. In consequence of the fastidiousness existing among women, it was little appealed to in aid of their sufferings. Delivery was assigned to, or rather permitted to be exercised by those entirely ignorant of its principles. Midwifery was in the hands of elderly women, who were usually conceited in proportion to their ignorance. To show that in the middle of the eighteenth century, midwifery was hardly regarded as belonging to the regular duties of the medical practitioner, it may be stated that Dr. Smellie, who afterwards contributed so much to improve and perfect it, at the commencement of his career

"united the occupation of cloth merchant and practitioner of midwifery at Lanark."[1]

Instruction in midwifery was first commenced in Edinburgh in 1726. The patrons of the University then founded a Professorship of this branch, to which was appointed Mr. Joseph Gibson. With respect to this the following statement is made by Mr. Bower: "At the time Mr. Gibson made his proposals to the Town Council, the practice of Midwifery in Scotland was completely engrossed by females. The profession of Accoucheur, little more than thirty years ago (from 1817), was esteemed very unbecoming a gentleman, and so strong was the current of vulgar prejudice against those who practised it, that it was only in the most extreme cases, and, in general, when they could be of little or no service, that modest women would permit them to be called in for advice or assistance. Mr. Gibson solely instructed the midwives, and he was not a member of the Senatus Academicus. On his death in 1737, Mr. Robert Smith was appointed his successor, and was the first who had the status of a member of the Senatus."[2]

"Dr. Thomas Young, who in 1756 succeeded Mr. Smith, may truly be considered as the founder of this branch in the University of Edinburgh. He opened a class for students, instead of confining his attention to the education of females, and thus was the means of preventing midwifery from being engrossed by a very ignorant and credulous set of practitioners. He furthermore applied to the Managers of the Royal Infirmary for permission to fit up a ward for 'Lying-in Women,' and was successful."[3]

"Even among medical men, for a long time after the branch had been introduced into the studies of the University, the prejudice against it continued. In 1769 an act was passed by the College of Physicians of Edinburgh, declaring those who practised Surgery, or any of its branches, including Obstetrics, disqualified from being admitted Licentiates of the College; and this having been carried by the majority, a

[1] Life of Cullen, by Dr. J. Thomson, vol. i. p. 10.
[2] Bower's History of the University of Edinburgh, vol. ii. p. 254.
[3] Ibid., vol. iii. p. 516.

dissent from the determination was entered by Dr. Thomas Young. In this dissent he was supported by his Colleagues Drs. Cullen, Monro, Ramsay, Gregory, and Black, and by Dr. James Hay. In the progress of the discussion, which lasted until May, 1772, when the College reverted to their original resolution of prohibiting the practice of Surgery and its several departments, by Fellows of their own body, Dr. Cullen took, in a great measure, the lead at the meetings of the College. The following reasons were given in opposition to this act with reference to Obstetrics."

"If the separation of Midwifery from Physic was the principal intention for passing this new act, it is certainly one of the most improper. Midwifery is a part of Surgery the most diversified that we know of, and the most requiring the general principles of physic. A judgment in physic is often inseparable from the practice of Midwifery, when it is not possible to have either the physician always at hand, or to render him useful unless he is exercised in the practice of it; therefore it is to the interest of mankind to have the two conjoined, if possible, in one person."

"We are persuaded that the public will think it for their interest, in cases which are attended sometimes with so great and sudden danger that physicians of the first rank should undertake the profession of Midwifery, and that the Legislature will not suffer the College of Edinburgh to put a mark of contempt upon such physicians by excluding them from their Society."

Before Dr. Cullen died this act was repealed, and practitioners of midwifery admitted as Fellows of the College.[1]

The elevation of Midwifery to its true position in England is due mainly to the writings of Dr. Smellie, Dr. William Hunter, and his pupil Dr. Denman; while Mauriceau and Baudelocque were, by their clear and philosophical exposi. tion of its principles, mainly instrumental in establishing its importance on the Continent.[2]

[1] Life of Cullen, vol. ii. pp. 89–697. Continued by Dr. Craigie.

[2] Dr. John Maubray is considered by Dr. Denman as the first public teacher of Midwifery in England, and in 1724 published a syllabus of his

It has been seen that Dr. Shippen, while in Europe, cultivated obstetrical science. Upon establishing himself in business, he endeavored, by teaching its principles, to ameliorate the evils which came from the assumption of its duties by persons destitute of competent skill or knowledge. In the "Pennsylvania Gazette," Jan. 1, 1765, we find this curious advertisement:—

"Dr. Shippen, Jr., having been lately called to the assistance of a number of women in the country, in difficult labors, most of which were made so by the unskilful old women about them; the poor women having suffered extremely, and their innocent little ones being entirely destroyed, whose lives might have been easily saved by proper management; and being informed of several desperate cases in the different neighborhoods which had proved fatal to the mothers as well as to their infants, and were attended with the most painful circumstances, too dismal to be related! He thought it his duty immediately to begin his intended courses in Midwifery, and has prepared a proper apparatus for that purpose, in order to instruct those women who have virtue enough to own their ignorance and apply for instruction, as well as those young gentlemen now engaged in the study of that useful and necessary branch of surgery, who are taking pains to qualify themselves to practise in different parts of the country, with safety and advantage to their fellow citizens."

After giving an outline of the contemplated course, the advertisement goes on to state that, "in order to make the course more perfect, a convenient *lodging* is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessaries on these occasions,

lectures. His course consisted of twenty lectures, twelve of which were anatomical and physiological, and eight practical.

Dr. Edmond Chapman was the second public teacher of this branch in London about the year 1730. "He was a practitioner in the country, and came to the metropolis once a year to deliver his lectures; but his pupils were only instructed in the theory, as he had no machine; nor were they allowed to attend labors, for Smellie first introduced these two great improvements. Dr. Chapman first described the forceps." This instrument had been invented by Paul Chamberlain.—*Sketch of Medicine and Midwifery in Denman's Treatise on Midwifery.*

to be under the care of a sober, honest matron, well acquainted with lying-in women, employed by the Doctor for that purpose." This is the first attempt in this country to establish a practical school or hospital for lying-in women. By his exertions in this direction, Dr. Shippen succeeded in popularizing "Man Midwifery," and acquired a respectable share of practice. We are informed by Dr. Wistar, that prior to the Revolution, Dr. Shippen "seems to have had a distinct class of students in the branch of Obstetrics; after that he delivered a short course to his general class," and adds: "I believe there was no lecture in which he shone so much as in his Introductory one to Midwifery, upon the subject of dress and deportment."

The union of Anatomy and Midwifery, after Dr. Shippen's death, did not continue without remonstrance upon the part of the Professor, Dr. Wistar. From the Minutes of the Board of Trustees, Jan. 9, 1809, immediately after his election, we find that he directed a letter to that body, "requesting, for reasons therein stated, that the Professorship of Anatomy and Midwifery be abolished, and that two distinct Professorships be established in this Seminary." The movement which ensued from this proposition led to the passage of the following resolution, April 11, 1810:—

"That the present establishment of a Professor of Anatomy and Midwifery be divided, and that hereafter there shall be a Professorship of Anatomy, and a Professorship of Midwifery, but that it shall not be necessary in order to obtain the Degree of Doctor of Medicine, that the student shall attend the Professor of Midwifery."

On the 29th of June, 1810, Dr. Thomas Chalkley James was elected Professor of Midwifery. To no one could the duties of this chair have been more appropriately committed than to this amiable, gentle, and accomplished gentleman.

But with the act of calling Dr. James to the newly-created chair of Obstetrics, it must not be concealed that a grudging assent was given to the propriety of elevating the subject to a condition of independence, and that its equality with others as a branch of medical science was denied, from the fact that attendance upon the lectures of the Professor was not made

obligatory for a degree. For three successive years it modestly remained subordinate. In 1813 it assumed its legitimate footing, when attendance upon the lectures and an examination upon it became requisite for graduation.

The following is the Resolution on the Minutes of the Board of Trustees, Oct. 11, 1813: "Resolved, that hereafter the Professor of Midwifery shall be a member of the Medical Faculty, and that no person shall be admitted as a Candidate for the Degree of Doctor of Medicine in this University, unless he shall have regularly attended the lectures of said Professor for two years, provided, &c." On this event, Dr. Hodge, in the Life of Dr. James, thus forcibly comments:—

"This triumph of Truth and humanity over ignorance and prejudice may be considered as complete. Obstetrics was confessedly equal to the other branches of medical science, and its practitioners and teachers were authoritatively pronounced on a par with Surgery and the Practice of Medicine. The battle had been fairly fought and won, and Dr. James, who contributed so much to the happy issue, received now the reward so eminently due to modest worth, superior talents and attainments united with persevering industry."

At the time of his election in 1810, Dr. James had Dr. Chapman associated with him, which connection continued until the bestowal upon the Chair of its full dignity and privileges, when the latter gentleman assumed new functions in the School.

The mode of examination for Degrees, from the foundation of the Medical Department, had been to subject the student, in the first instance, to a private investigation of his qualifications by the Professors, and then, by public demonstration before the Trustees, to exhibit his fitness for the honor of the Doctorate. The latter process was technically termed "defending his Thesis." The first ordeal was the most important. It in reality determined the fate of the applicant, as the Professors took care not to expose incompetent persons to the mortification of failure in the public exercises, and were, moreover, well informed by it of the preparation of the candidate for a second examination. At the examination of 1810, a modification of the first step in the proceedings was adopted,

which has given rise to the conventional term for examination, even still employed, "The Green Box." With respect to its origin, we quote the Minutes of March 20: "This day, from certain difficulties having arisen, the Professors commenced the practice of examining the candidates *behind a screen.* Mr. Naudain was the first candidate examined in this manner."[1] In this way the individual was only known to the Dean. The custom of examining in the "Green Box" was formally abolished by the Faculty in 1821. The examination upon the Thesis was not always satisfactory, as cases are on record of failure in this part of the exercises.

On the 1st of January, 1811, the Trustees appointed a committee of their body to "revise the Bye-Laws and Ordinances that have been made in this Institution, and to report such a set of Bye-Laws and Ordinances as to them shall appear proper and consistent with the Constitution of the Seminary for the regulation thereof."

On the 21st of January the following rules were enacted with reference to the Medical Department:—

"In the Medical Department there shall be a Professorship of Anatomy; of Surgery; of the Institutes and Practice and Clinical Medicine; of Materia Medica; of Chemistry; of Natural History and Botany; of Midwifery; of Natural Philosophy.

"The Medical Schools shall be under the immediate government of the Medical Professors, subject to the Rules and Statutes of the Board of Trustees.

"The Medical Professors shall hold meetings from time to time for the purpose of arranging and conducting the business of this department, and establishing rules and regulations for the preservation of order and decorum among the medical students, and they shall keep regular minutes of their proceedings.

"All questions (those excepted which relate to the passing of a Candidate for a Medical Degree) shall be decided by a majority.

"Each student, and every other person attending a course

[1] Dr. Arnold Naudain, of Delaware, afterwards a distinguished citizen of that State, and Senator of the United States.

of medical lectures, shall pay to the Treasurer of the University four dollars at the beginning of every session, and no Professor shall deliver a Ticket of admission to his lectures, unless at the time of application thereof, the treasurer's certificate of the payment of that sum be produced by the applicant.

"The Medical Professors shall, each in rotation, act as Dean for one year, and it shall be the duty of the Dean to arrange and conduct the business of examining the candidates for medical degrees.

"The Professor of Natural Philosophy in the Medical Department shall not be considered as a member of the Faculty, nor entitled to a vote at the meetings of the Medical Professors; nor shall he comprehend within the plan of his lectures any branch of natural knowledge for which there is a professorship especially appointed in the Medical department. He shall provide apparatus for his own use, and he shall have authority to make regulations for the government of his school, subject to the Rules and Statutes of the University.[1]

*Rules for Graduation.*

"1. No person shall be admitted as a Candidate for the Degree of Doctor of Medicine until he shall have attained the age of twenty-one years, nor unless he shall have applied himself to the study of Medicine three years, two of which shall have been in this University; nor unless he shall have attended the Pennsylvania Hospital during one session at least, and also have attended the practice and been the private pupil of some respectable practitioner.

"2. No person shall be admitted as a candidate for said Degree unless he shall have regularly attended the lectures of the following Professors: of Anatomy, Surgery, Institutes,

[1] This Professorship was instituted at the same time as the Chair of Midwifery, as a part of the organization of the Medical Faculty. It was filled June 29, 1810, by the election of Mr. Robert Hare, who does not appear to have performed any duty, and resigned October, 1812. It was subsequently filled by the appointment of Dr. Robert M. Patterson, until the transfer of that gentleman to the Chair of Natural Philosophy and Mathematics in the Department of Arts, in 1814.

Practice and Clinical Medicine, Materia Medica, and of Chemistry.[1]

"3. Each person intending to offer himself as a Candidate for the Degree of Doctor of Medicine, shall, on or before the 10th day of March of the year in which he offers himself as a Candidate, signify such intention in writing to the Dean, and shall, one week at least before the time appointed for his examination, deliver to the Dean a Thesis on some Medical Subject, which subject shall have been approved by the Professors. The Candidate shall then be examined privately by the Professors upon the various branches of Medicine, and upon his Thesis in the presence of such of the Trustees as may choose to attend, notice of the time of examination having previously been given to them. If he be found qualified for the Degree, he shall be so reported by the Dean to the Provost, who shall communicate such report to the Trustees, in order that if approved by them, their Mandamus may be issued for conferring the Degree, at such time as they may judge expedient.

"4. The Thesis may be published, if the Candidate desire it; the permission of the Professor by whom he was examined thereon having been first obtained, but no alteration shall be made therein after such permission shall have been given; and a copy of the Thesis shall be deposited in every case in the University Library before the degree be conferred.[2]

"5. Each graduate in Medicine shall pay to the Provost three dollars as an honorarium, and to the Vice-Provost two dollars as an honorarium, at the time of placing their signatures to the Diploma."

The fee for graduation had been regulated in 1809, by requiring of the graduate the sum of five dollars to each Pro-

[1] Midwifery was omitted as a branch necessary for graduation, and did not rank on an equality with the other branches until 1813. See *ante*.

[2] It had been enacted in 1802, "That the Dean inform each Candidate upon his application, that if it should appear upon inspection of his Thesis that he was not well acquainted with Orthography he will not be regarded as qualified for a Degree." In 1806 the candidate was relieved of the necessity of publishing his Thesis, and it was made optional with him to print it or not, as in the regulation above.

fessor. In the arrangements subsequently made between the Trustees and the Professors, the specific fees of the Provost and Vice-Provost have been commuted for an addition to their salaries. The pecuniary understanding between the Board and the Faculty has undergone many modifications, arising from an outlay of capital in providing accommodations for teaching. The whole fee for graduation was fixed at forty dollars, which continued to be the regulation until 1837, when the matriculation fee was fixed at five dollars, to be paid but once, and the fee for the diploma reduced to thirty dollars.

## CHAPTER X.

**Death of Dr. Rush—His services to the Medical School and his doctrines—Election of Dr. Barton to the Chair of Practice, and of Dr. Chapman to that of Materia Medica—Death of Dr. Barton—Sketch of his life and labors as a teacher and naturalist—Election of Dr. Chapman to the Professorship of Practice, and Dr. Dorsey to that of Materia Medica.**

THE University sustained a loss in the death of Dr. Rush, which happened on the 13th of April, 1813. It is a difficult task, after the lapse of more than half a century, to enter fully into an estimate of the qualities of this brilliant teacher of the medical sciences. We receive the impression of his ardor and enthusiasm from his early letters, when he first entered the portals of the temple of science, and we must appeal to the records of his life for the character he bore and the influence he exercised, when, in the position of priest, he ministered at its altar. For forty-four years he continued to expound the science of Medicine to admiring listeners, attracted by the polish of his language, the smoothness of his diction, and the clearness of his expositions. As age advanced, he truly became the "old man eloquent," and had the satisfaction of witnessing the progressive increase of the class in attendance upon his lectures, from the small number with which he began his career to over four hundred at its close.[1] He died with the satisfaction of knowing that the popularity that had been attendant upon his labors, and which had contributed so much to the success of the University, had not ceased nor waned, for his eye was not dimmed, nor was his mental energy abated.

On the death of Dr. Rush the following Resolutions were passed by the Faculty, April 28, 1813:—

"The Medical Professors having convened for the purpose

[1] See Appendix F.

of uniting in a testimonial of respect to the memory of their late colleague, Dr. Benjamin Rush, Prof. of the Institutes and Practice of Medicine, and feeling sensibly the afflictive dispensation of Providence, which has removed from the Medical School one of its earliest and ablest supporters, Resolved, that the Secretary be directed to record their high estimation of the talents, learning, and eloquence of their late colleague, and of his unwearied diligence and zeal in the discharge of every official duty.

"That the Professors cherish a lively recollection of his laborious exertions in the promotion of medical science, exertions which have conduced greatly to the reputation and interests of the University, and have conferred important benefits upon mankind."

To trace the course of medical science through its phases of doctrines and opinions, from the commencement of the eighteenth century, when a remarkable impulse was given to it, to the time when Dr. Rush terminated his labors, would be an agreeable and instructive task. It would present the account of the contest between the lingering power of scholasticism, monkish credulity, bigotry, and dogmatism, and the teachings of experiment, observation, and reason.[1] In Medicine, as in other sciences, the victory declared itself upon the side of humanity. There had previously been a fearful struggle, when death and the dungeon were the awards for the temerity of proclaiming God's own natural revelations, and of reading, by means he had bestowed, the truths of science; yet, through such a terrible ordeal had science passed, and placed its heel on superstition.

The difficulty is great of being entirely freed from illusive dogmas and long-continued prejudices, which have become a part of the mind itself, and tinctured its mode of operation and expression. This has been the case with Medicine. The metaphysical connection between the soul and body

[1] The reader may be referred to two interesting and instructive works for information upon this subject: the "Life of Cullen," by Dr. Thomson, previously referred to, and the "Brief Retrospect of the Eighteenth Century," by S. Miller, D. D.,.vol. i. The article, "Medicine," in it, was written by the late Edward Miller, M. D., of New York.

hung like an incubus upon all endeavors to ascertain the nature of the vital processes, and gave a bias to every effort to determine the secret of their production. For centuries the agency of the rational soul was the phantom of medical philosophers, who deviated from the natural history arrangement of the vital actions devised by Aristotle, and, not content to study them in their manifestations to the senses, plunged headlong into the pit of blind, conjectural subtleties connected with causation. The idea that a vital principle existed, and modified the structural operations of the body, was obscurely seen by Van Helmont and Paracelsus, and to their imagination became a presiding deity, or demon. The rational soul, the *anima* of Stahl, was but another form of the same fancy, which figured, even in the middle of the eighteenth century, in the explanation of the vital processes by so accurate and meritorious an observer as Prof. Whytt.[1] That Stahl himself had little faith in his own enunciation, and that he made it in deference to the authority of the schoolmen, he admits, when he informs us that the "introduction of the rational soul into his medical theory was not at all necessary to its vitality, and assigns as a reason for having recourse to that principle, his fear of being suspected to maintain that certain corporeal actions could be performed without an agent."[2] To this ancient delusion Des Cartes administered the *coup de grace* by denying the existence and co-operation of a sentient soul in the production of the animal functions, and showing that the vital processes may be executed independently of mental co-operation. The teachings of Hoffman and Boerhaave were in accordance with the Cartesian philosophy; when the last shadow of pagan theism and clerical superstition vanished from sight forever.

We have alluded to the foreign origin of the physicians who first settled in the colonies, and to the education of those who, at an early period, went abroad to the University of Leyden, where Boerhaave was the presiding genius. He was the dictator of medical opinions, not only on the Continent,

[1] The Works of Robert Whytt, M. D., Professor of Medicine in the University of Edinburgh. 1768. Quarto, pp. 140 and seq.

[2] Thomson's Life of Cullen, vol. i

but in England, and hence their transfer across the Atlantic. We have the authority of Dr. Rush for stating that, until the period of the institution of the Medical School, the system of Boerhaave governed the practice of every physician in Philadelphia.[1]

Boerhaave was a vigorous reformer, and did yeoman's service in exploding the fallacies of dogmas. He was versed in the mathematical sciences and natural philosophy, and although too strongly mechanical in his notions, saw clearly the importance of bringing to bear upon medical inquiry a correlation of the sciences. The whole system which he inculcated may be judged of from the creed which he uttered—"Let anatomy faithfully describe the parts and structure of the body; let the mathematician apply his particular science to the solids; let hydrostatics explain the laws of fluids in general, and hydraulics their actions as they move through given channels; and lastly, let the chemist add to all this whatever his art, when fairly and carefully applied, has been able to discover; and then, if I am not mistaken, we shall have a complete account of medical physiology." But Boerhaave had not disabused himself of the belief in the animal spirits as a motor force, and although inferring that each motor nerve had a separate origin, and hence an office, he did not, in his physiological system, take very enlarged or correct views of the vital properties of organized beings, or of the dependence of their properties on the state of the nerves.

When Cullen came into estimation as a teacher, he reigned supreme both in Great Britain and America. His views and opinions superseded those of Boerhaave, and were without challenge until the rise of the Brunonian system, a competitor for credence. From his immediate connection with Cullen as a pupil, Dr. Rush, as we have seen, returned to America imbued with his doctrines, and warm in admiration of his mental qualities. But extensive observation, reading, and reflection, had taught, in subsequent years, the enthusiastic student that the line of speculation was not exhausted; and from a vast experience in the maladies of a new

[1] Rush's Works, vol. iv. p. 375.

world, materials for thought were presented to him which were not dreamed of in Cullen's philosophy.

That Dr. Rush aspired to be the founder of a system of medicine we are informed upon the undoubted authority of his biographer, Dr. Ramsay, who says: "In the autumn of 1789 I visited Dr. Rush, and was received by him in his study. He observed that he was preparing for his next course of lectures in self-defence; that the system of Cullen was tottering; that Dr. John Brown had brought forward some new and luminous principles of medicine, but they were mixed with others which were extravagant; that he saw a gleam of light before him, leading to a more simple and consistent system of medicine than the world had yet seen, and pointed out some of its leading features."[1]

The system to which reference is made in the preceding statement is that which has been familiarly known as the "Unity of Disease." With reference to this we may pertinently quote the comments of one who, of late years, has written the Life of Dr. Rush, with the spirit of an ardent admirer, but whose medical intelligence led him to criticize the doctrine of the master. "This wonderful vision may be thus explained. Excitement or Life is a unit, and this can be accurately divided into healthy and morbid only; hence there can be but one disease, that is, morbid excitement. This position involves a huge universality, which very few minds, who have seen diseases, can at all comprehend; nor have we ever been persuaded that Dr. Rush himself had well-defined ideas thereof. We have always thought him most wonderfully entangled in the web of his honest sophistry."[2]

Attractive and plausible as have been the systems of medical philosophy presented to the world, as generalizations they all partake of the *deductive* method of investigation, which assumes first principles of too limited a scope to admit

[1] An Eulogium upon Benjamin Rush, M. D., Professor, &c., University of Pennsylvania, by David Ramsay, M. D., Member of the South Carolina Medical Society, 1813. In this book is an admirable summary of the doctrines of Rush.

[2] Life of Benjamin Rush, M. D., by Samuel Jackson, M. D., late of Northumberland.—American Medical Biography, edited by Dr. Gross.

so wide an application as has been made of them. The animal economy cannot be regarded as obedient to one single law of government, by which the vital operations of its parts and organs can be all accounted for; and the day has passed when even brilliant discovery in one track of research can carry captive the entire mind of the profession. The mine to be explored of obscure organic operations admits of more than one approach, and to detect and make apparent latent truths requires access by numerous avenues. Modern research, by employing every available means and vastly improved appliances, has demonstrated that the forces that are active in controlling and regulating the animal organism are numerous and wide-spread. Haller, Hunter, and Bichat led the way in basing pathology upon physiological knowledge, by which alone practical medicine can be successfully directed; and exhibited clearly that observation, experience, and inductive reasoning are the sure methods of obtaining right principles. Without these, as has been remarked by Dr. Rush, "medicine is an humble art, and a degrading occupation."

From his valuable labors as an observer and the historian of disease, Dr. Rush must pass to posterity with honor and admiration irrespective of his theoretical opinions. The account of the Yellow Fever of 1793, and of the succeeding years, would perpetuate his name, had he written none of his other numerous communications, literary and scientific.[1]

Upon the death of Dr. Rush, the Chair of Practice was filled by the appointment of Dr. Benjamin Smith Barton, July 14, 1813. By this transfer, the Chair of Materia Medica becoming vacant, was filled August 3d following, by Dr. Chapman, who had previously assisted Dr. James in the office of Lecturer on Obstetrics.

Dr. Barton carried into his new position in the Faculty the prestige of an extended reputation as a teacher of Materia Medica and the Natural Sciences, as well as the advantage of

[1] For a list of the papers written by Dr. Rush, consult the Life of Dr. Rush by Dr. Ramsay; also Jackson's Life of Rush.

having been a private practitioner, and one of the physicians of the Pennsylvania Hospital. He did not live to determine to what eminence he might have attained in the Chair of Practice, as, after one course of lectures had been delivered, and as the other was about to commence, death terminated his career on the 19th of December, 1815.

It has always been a matter of question whether Dr. Barton would have distinguished himself as a teacher of purely practical medicine, as he had done in the chair which afforded the opportunity of indulging in the especial bent of his genius. His reputation rests upon his success as a naturalist, and cultivator of the branches of knowledge depending upon the natural sciences for their elucidation.

He was born in the city of Lancaster, Pennsylvania, in 1766, the son of an Episcopal clergyman there settled. His mother was the sister of the celebrated David Rittenhouse. Upon the death of his father he was transferred to the charge of the Rev. Dr. Andrews, afterwards Provost of the University of Pennsylvania, who then resided at York. He studied medicine under the direction of Dr. Shippen, at the period when the University had superseded the College, and in 1786 embarked for Europe to continue his studies. He was a student of the University of Edinburgh for two years, but did not graduate at that Institution, determining, from personal reasons, to obtain his diploma at the University of Gottingen.

The predilection of Dr. Barton for Natural History, and more especially for Botany, evinced itself very early. He manifested very soon in life a taste for drawing, and "in the execution of his designs with the pencil, at an immature age, he discovered that taste and genius in the art which he afterwards cultivated with much success." It is said that his knowledge of drawing was acquired from the instruction of Major André, who was a prisoner of war at Lancaster. "This talent was often rendered subservient to his pursuits in Natural History and Botany, branches of science which are greatly assisted in their acquisition by the investigator having himself a facility in copying the subjects appertaining to them." It was Dr. Barton's opinion that "no man could become a wise, discriminating, and eminent botanist without possessing

that acumen in perception of proportion, color, harmony of design, and of obscure differences in the objects of the vegetable world, which alone belong to the eye of the painter." That his bias towards Botany took a practical turn, we are assured by the fact that "young as he was at the time, he obtained from the Royal Medical Society of Edinburgh an honorary premium for his dissertation on *Hyoscyamus Niger*, of Linnæus. It was the Harveian prize."

In London, during the summer of 1787, when at the age of twenty-two years, he published a little tract, entitled, "Observations on some parts of Natural History," to which is prefixed an account of remarkable vestiges of an ancient date, which had been discovered in North America.

While residing in the metropolis of England, he was treated with distinguished consideration by Dr. Hunter and Dr. Letsom, having attracted attention by his general scientific proclivities. He was at this time elected a member of the American Philosophical Society. The minute of his election reads thus: "Jan. 16, 1789, Benjamin Smith Barton, M. D., at present in Edinburgh, corresponding member of the Society of Antiquaries of Scotland, late of the University of Pa., was elected a member."

When the College resumed its functions in 1789, Dr. Barton, then twenty-four years of age, was chosen the Professor of Natural History and Botany. As has been shown, Botany had been taught by Dr. Kuhn in 1768, and the subject had been considered of sufficient importance to be appended to the Chair of Materia Medica. When, in the new order of things, the two institutions were exercising separately their functions, and Dr. Kuhn had assumed the duties of Practice in the University, the professorship mentioned was created in the College, apparently for the purpose of securing the talents of Dr. Barton. This he retained under the union of the two Faculties, and accordingly we find his name thus appended in the list of Professors of the University in 1792.

The opinion that the natural sciences were important in a scheme of medical instruction may be observed to have constantly influenced the actions of the Board of Trustees, whether of the College or of the University; for we find that although

without practical results, Mr. William Bartram was elected Professor of Botany in 1782. Although Dr. Barton was not the first Professor of Botany, he was the first of Natural History, and, so far as can be discovered, the "first teacher of Natural Science in this Cis-Atlantic World." During Dr. Barton's pupilage, however, it would appear that no instruction in Natural History, not even in Botany, was given. He was essentially self-taught, as he expressly declares in a preface to a "Discourse on some of the Principal Desiderata in Natural History, &c." "I have never attended any lectures, however imperfect, on Natural Science or Botany." It is inferred from this that Dr. Kuhn, at the time of Dr. Barton's pupilage, must have discontinued his lectures on Botany.

Preparation in the natural sciences did not constitute a requisite for graduation, and was therefore voluntary on the part of the student, and yet no complaint has been handed down, or recorded, of want of encouragement; indeed, the zeal and enthusiasm of the incumbent of the chair, with his skill in making attractive his then novel and curious subjects of information, were sufficient to awaken attention and secure satisfactory patronage. He, in fact, created a taste for these pursuits, that has never been lost in this community, and which has ultimately developed itself in permanent establishments for the cultivation of the natural sciences.

Dr. Barton was eminently a pioneer in exploring the treasures of the Western Continent. He employed competent persons to collect the botanical productions of various sections of the country, who, while thus engaged in the service of a patron, laid the foundation of their own reputation. The researches of Pursh were encouraged by him. In the preface to the "Flora Americana Septentrionalis, by Frederick Pursh," who was curator of the garden of William Hamilton, Esq. (Woodlands), he states that at this period, between the years 1802 and 1805, he "had also formed a connection with Dr. Benjamin Smith Barton, Professor of Botany in the University of Pennsylvania, whose industrious researches in all the branches of Natural History are so well known to the literary world. He likewise, for some time previously, had been collecting materials for an American

Flora. As I was now very anxious to explore the remote parts of the country, particularly in the interesting ranges of the Alleghany Mountains, I was enabled, by the kind assistance of this gentleman, to take a more extensive range for my botanical excursions. The collections and observations made in the course of these journeys, all of which I communicated to Dr. Barton, were considerable in respect to the discovery of many new and interesting subjects of Natural History in general."[1] Under his auspices, likewise, the late Mr. Thomas Nuttall laid the foundation of that extensive knowledge of our native plants which was embodied in his *Genera of North American Plants*."[2]

If the subjects of the Theses enumerated on the Catalogue of Graduates during the connection of Dr. Barton with the Medical School be examined, one cannot but be forcibly impressed with the number which treat of the Vegetable Materia Medica of the United States. It was a department which he fostered, writing not only upon it himself, but instigating his pupils to its cultivation.[3] Nor are these essays jejune, for under the conducting hand of the master, they took the form of experimental and practical utility, and the present generation is under obligation for valuable researches, in the field of home productions, to many aspirants for medical

[1] Pursh's Flora was printed in London in 1814, and dedicated to the eminent botanist Lambert. A journal of Pursh's has recently come to light in the collection of MS. of the Philosophical Society. It contains references to his communications to Dr. Barton.

[2] Mr. Nuttall came to Philadelphia in the spring of 1808. To solve a doubt in Botany he called upon Prof. Barton, who received him with politeness, and, "struck with the intellectual countenance of the young man, invited him to take a seat, and entered into conversation with him, pointing out the difference between the two genera, Smilax and Passiflora, and giving a dissertation upon the principles of Botany, and the infinite pleasure this science afforded its votaries." Mr. Nuttall was so deeply impressed by what he heard that he determined to pursue the study of Botany as an occupation. For an interesting memoir of Thomas Nuttall, we are indebted to Mr. Elias Durand. It will be found in the Proceedings of the Philosophical Society, vol. vi.

[3] Among the publications of Dr. Barton may be mentioned his "Collections for an Essay towards a Materia Medica of the United States," and his "Elements of Botany," both issued at the commencement of the present century.

honors. Under his training skilful botanists were formed, whose contributions have been creditable to their native country.

The works of Dr. William P. C. Barton, the nephew of the Professor, are evidences of zeal and ability in the endeavor to render available a knowledge of the medical and general botany of the United States; while of equal merit are the contributions to the same department of Dr. Jacob Bigelow, of Massachusetts.[1] To the same source of instruction and encouragement may be traced the long life labors of Dr. William Darlington, who thus most feelingly speaks of his preceptor: "In November, 1802, I repaired to Philadelphia to attend the lectures in the University of Pennsylvania, where I was favored to become familiarly acquainted with Prof. B. S. Barton, who discovered in me a considerable fondness for the study of plants, took me under his special patronage, and, by his kind attention and instruction, gave a decided bias to my future pursuits. A Society was formed, called the *American Linnæan Society*, of which Prof. Barton was President, and it did me the unexpected honor of enrolling me among the members." Dr. Barton was in the habit, in connection with his botanical lectures, of taking his pupils to the Bartram Botanic Garden. This was situated on the west bank of the Schuylkill, about four miles below Philadelphia. "It was established as early as 1720, by that great vegetable naturalist, John Bartram, the elder, at a time when nothing of the kind existed in the Colonies, except Dr. Clayton's, in Virginia. Here were concentrated very many of the indigenous plants and trees of North America, and in a greater profusion, perhaps, than can be found elsewhere. Mr. Bartram and his descendants were industriously employed in making this garden for one hundred and ten years."[2] Dr.

[1] Dr. William P. C. Barton is the author of "Vegetable Materia Medica of the United States," published in 1818, in 2 vols. quarto; "A Flora of North America," illustrated by colored figures, 3 vols. quarto, 1823; "A Flora of Philadelphia," and other contributions to this branch of science. Dr. Jacob Bigelow is the author of the "American Medical Botany," published in 1817, and "Florula Bostoniensis," in 1824.

[2] Report of the Committee of the Horticultural Society, 1833.

Darlington states that "William Bartram and John Bartram, Jr., were then living there in 1804; and distinctly do I recollect the venerable men, though I little dreamt I should one day have to do with the history of the family."[1]

Dr. Barton himself erected the first Green-House in the city. It was in the rear of his residence on Chestnut Street, below Eighth.[2]

Dr. William Baldwin was indebted for his early introduction to the study of the science of Botany to the instruction received at the University. This, in after years, bore fruit in the exploration of the Flora of the Southern States, and that of South America.[3]

Another distinguished botanist, Dr. Thomas Horsfield, was a pupil of Dr. Barton. Before adventure led him abroad, he graduated at the University of Pennsylvania, in 1798. His thesis was "An Experimental Dissertation on the Rhus vernix, Rhus radicans, and Rhus glabrum." He was a native of Bethlehem, Pa., and went upon a trading voyage to the East Indies, where he was induced to settle, his talents and accomplishments finding occupation as naturalist and civil agent at the hands of the enlightened British statesman at the head of the Government of Java, Sir Stamford Raffles.[4] Dr. Horsfield, among his other communications with respect

[1] Dr. Darlington wrote interesting Biographical Notices of John Bartram and Humphrey Marshall, and edited their correspondence. A portion of Dr. Darlington's journal, from which the above references have been taken, is given in the life of that learned botanist by Thomas P. James, Esq., read before the American Philosophical Society, 1864. Dr. Darlington is the author of the "Flora of Chester County," an admirable work, and a model of the kind.

[2] This Green-House afterwards became celebrated in the hands of Mr. George Pepper, the father of Prof. William Pepper, of the University of Pennsylvania.

[3] Reliquiæ Baldwinianæ, by Dr. William Darlington.

[4] The "New American Encyclopædia" notices Dr. Horsfield as an English traveller and naturalist. From what source this error came we are not informed. In the Philadelphia Medical Museum, edited by Dr. J. Redman Coxe, vol. i., is an account of a voyage to Batavia in the year 1800, by Dr. Horsfield. In 1802 Dr. Horsfield fixed his residence in Java, where he was found by the English when the island was taken possession of by them in 1811.

to the botany of Java, wrote upon the Upas Tree, and dispelled the fabulous traditions with reference to that plant, thus placing it in its right position among vegetable productions.[1]

As has been stated previously, upon the Chair of Materia Medica becoming vacant by the resignation of Dr. Griffitts in 1796, Dr. Barton was placed in it; and, for the first time, enjoyed the full privileges and distinction of a Professor. He was then thirty years of age. With this promotion "begins and rests the high professional reputation of Dr. Barton in Medicine." During the twenty-six years that he was connected with the Medical School, he occupied a position of prominence, and was greatly instrumental in promoting its rising reputation. Twenty-four courses of lectures on Botany were delivered by him.[2] We are informed that, as a medical teacher, he was eloquent, instructive, and, when occasion required, quite pathetic. In temperament he was irritable, and even choleric, though in his gentle moods he was kind, tender, and indulgent.

In 1804 Dr. Barton commenced a semi-annual periodical, entitled "The Philadelphia Medical and Physical Journal." This work was announced to be devoted to original communications relative to all the branches of medicine, natural history, and physical geography, biographical sketches, reviews, extracts, and miscellaneous tracts. It was carried on irregularly until 1809, and, as might be supposed from the Natural History tastes of Professor Barton, was mostly devoted to that branch of science. Indeed, to be a punctual recorder of the progress of medicine and the sciences, and to endure the uniform periodical labor of an editor, were not in

[1] See Magendie's "Journal de Physiologie," vol. vii., from the Annals of the Batavian Society, vol. vii. Dr. Horsfield published, in 1821–24, his "Zoological Researches in Java and the Neighboring Islands." His collection of plants afforded the materials of Robert Brown's "Plantæ Javanicæ."

[2] The Botanical Lectures were supplemental, and delivered in the summer season. From an advertisement of the University lectures in Dr. Barton's publication, the "Philadelphia Medical and Physical Journal," we learn that the lectures on Natural History were delivered in Peale's Museum.

accordance with the diffusiveness of his genius; and we are not surprised, therefore, to find that his efforts in this line were fitful. The work, however, is interesting, as being one of the pioneers of periodical scientific literature in this city.

The tributes to Dr. Barton's scientific zeal and information were not withheld from him by the community in which he lived. In 1802 he was chosen one of the Vice-Presidents of the Philosophical Society. In 1809 he was chosen President of the Philadelphia Medical Society.[1] Numerous foreign honors were conferred upon him.

Dr. Nathaniel Chapman succeeded Dr. Barton in the Chair of Practice, March 5, 1816, and Dr. John Syng Dorsey was placed in the Chair of Materia Medica, April 5, of the same year.

[1] Dr. Barton succeeded Dr. Rush in the Presidency of this Society, who had resigned in consequence of the idea that a Professor should not occupy the position. An address from the Society led to a change of views in the Faculty, and Dr. Barton consented to serve. See Appendix H.

## CHAPTER XI.

A Faculty of Natural Sciences organized by the Board of Trustees—Death of Dr. Wistar—Sketch of his life and services to the University—Anatomical Museum—Dr. Dorsey succeeds Dr. Wistar—Death of Dr. Dorsey—Sketch of his life—Transfer of Dr. Physick to the Chair of Anatomy—Election of Dr. Gibson to the Chair of Surgery—Dr. Horner appointed Adjunct Professor of Anatomy.

WHEN Dr. Barton left the Chair of Materia Medica in 1813, the associated branches of Botany and Natural History were without an exponent. This was not without attention on the part of the Board of Trustees, and on October 4, 1816, we are informed by the Minutes that the Board proceeded to the consideration of the plan for establishing a Faculty of Natural Sciences, and passed the following resolutions:—

"That a Faculty, denominated the Faculty of Natural Science, be instituted in this University. The said Faculty shall at present consist of the following Professorships, reserving to the Trustees the power to combine or subdivide the Professorships as may hereafter be found expedient, provided no such alteration take place during a course of lectures:—

"1. A Professorship of Botany.

"2. A Professorship of Natural History, including Geology and Zoology.

"3. A Professorship of Mineralogy and Chemistry, applied to Agriculture and the Arts.

"That the Professorship of Natural Philosophy be detached from the Medical Department, and be connected with, and form a part of, the Faculty of Natural Science.

"That the Professorship of Botany and Natural History, as part of the Medical Faculty, shall be and is hereby abolished."

At a subsequent meeting it was resolved that a Professorship of Comparative Anatomy be added to those already established in the Faculty of Natural Science.

On Dec. 29th the following elections took place:—

DR. WILLIAM P. C. BARTON was appointed Professor of Botany; DR. CHARLES CALDWELL, Professor of Natural History; DR. THOMAS COOPER, Professor of Mineralogy and Chemistry; and DR. THOMAS T. HEWSON, Professor of Comparative Anatomy.

At the same time that this movement was made in behalf of the Natural Sciences, the subject of a Botanical Garden was taken up by the University. In 1815 it was brought before the Trustees in connection with a successful effort to interest the Legislature. The following action was taken Nov. 17:—

"On Motion, the Board agreed to the following: Whereas, the Legislature of Pennsylvania, by their act passed the 19th of March, 1807, granted the Trustees of the Institution, out of the monies due to the State, the sum of Three Thousand Dollars for the purpose of enabling them to establish a Garden for the improvement of the Science of Botany; Resolved, that a Committee be appointed to consider and report the best method of carrying the said intention of the Legislature into effect."

In 1816 this Committee reported, that in aid of the fund in possession of the University, "they have prepared subscription papers for circulation under direction of the Board." To this the Medical Faculty liberally responded.[1] The enterprise appears to have so far succeeded as to induce the Trustees, in 1817, to purchase forty-two acres of ground in Penn Township, near the canal road, for the sum of eight thousand dollars.

In the spring of 1818, the Professor of Botany, Dr. W. P. C. Barton, was permitted to use the yard attached to the University building in Ninth Street, for the purposes of a Botanic Garden. Upon the resignation of Dr. Barton no further idea was entertained of maintaining a Botanic Garden, and the land near the city was soon after sold by the University.

The year 1818 was marked by the death of Dr. Wistar. Dr. Caspar Wistar was of German origin. His paternal grandfather came from Hilsbach, near Heidelberg, in the Lower Palatinate, and at an early period settled in Pennsylvania. His parents

[1] From a subscription paper which has turned up in the Philosophical Society, it appears the Medical Faculty subscribed six hundred dollars.

belonged to the Society of Friends. He was born in the city of Philadelphia, Sept. 13, 1761, and received a classical education—indeed, he acquired so much familiarity with the Latin language as to be able readily to express himself in it. We are told by his biographer, Chief Justice Tilghman, that his determination to study medicine was settled by an event which aroused his benevolent impulses. "This event was the battle of Germantown, in 1777. His religious principles kept him out of the battle, but his humanity led him to seek the wounded soldier, and he was active in assisting those who were administering relief. His benevolent heart was affected by their sufferings, and so deeply was he struck with the happy effects of the medical art, that he determined to devote his life to a profession formed to alleviate the miseries of mankind."

He studied medicine with Dr. Redman, and, while a student, was further benefited by the instruction of Dr. John Jones, then practising surgery in Philadelphia.[1] He graduated as Bachelor of Medicine in 1782, at the University. As it is stated that he commenced his studies in 1777, he must have been one of the last pupils of the College, and among the first of the University; and it is not to be wondered at, therefore, that he should so ardently desire, and so actively exert himself to bring about their union in after times.

The statement has been made by Judge Tilghman, and repeated by other biographers, that the Faculty of Medicine, as then constituted, "were not all of one theory, and each Professor examined with an eye to his own system; of this Wistar was aware, and had the address to answer each to his entire satis-

[1] Dr. John Jones was the grandson of Dr. Edward Jones, and great grandson of Dr. Wynne. To both of these physicians allusion has been made when speaking of those who emigrated to Pennsylvania with William Penn in 1682. Dr. John Jones was by birth a citizen of New York, and there attained to such eminence as to be appointed to the Professorship of Surgery in King's College in 1768. About the year 1780 he removed to Philadelphia, and became one of the Physicians of the Pennsylvania Hospital. His regard for Dr. Wistar induced him to exert his influence in bringing the Doctor prominently before the public when yet a young man, and it is reported that when prepared to perform an operation, he insisted on Dr. Wistar taking the knife from him and executing it. Dr. Jones performed the first operation of lithotomy in New York. The Life of Dr. Jones was written by Dr. James Mease, and appended to an edition of the surgical works of that author printed in 1795.

faction, in his own way." The inference from this is that he had especially comprehended the teaching of the several professors, and had mastered their modes of thought and expression. At the time referred to, the doctrines of Boerhaave and of Cullen had each their advocates in the Faculty.

In 1783 Dr. Wistar went to Europe, and in June, 1786, was graduated Doctor of Medicine in the University of Edinburgh; his inaugural essay, "De Animo Demisso," being dedicated to Franklin and Dr. Cullen. While pursuing his studies in Edinburgh, he was elected President of the Royal Medical Society, a tribute justly to be appreciated, if it be recollected that the honor was conferred on an American student when the feelings incident to the Revolutionary struggle had hardly had time to be obliterated. Of the origin of this Society we have the account by Dr. Fothergill. "Several students at that time (1734), the foremost in application and knowledge, fired by the example of their masters, who had nothing more at heart than the improvement of those who committed themselves to their tuition, formed a Society, for their mutual instruction and advancement in their studies. Every student of a certain standing, who distinguished himself by his diligence, capacity, and conduct was initiated in this little assembly. Here the opinions of the ancients, of their contemporaries—nay, the doctrines of their masters—were frequently discussed, and two of the members were always charged with the task of providing instruction and entertainment for the next meeting of the Society."[1] When Dr. Wistar was an active member he had, as associates, men who afterwards became prominent. In speaking of the elevation of Dr. Wistar to the dignity of President, Dr. Chapman informs us that "it was in this Society that he acquired great reputation as a public speaker, so much so that even in my time, nearly twenty years afterwards, the debates conducted by Wistar, Sir James McIntosh, Beddoes, and Emmet, of New York, were frequently spoken of by older members as very uncommon specimens of eloquence and ability."[2]

[1] Essay on the character of the late Alexander Russell, M.D., Fothergill's Works.

[2] MS. letter to Judge Tilghman, among the papers collected by him for the Life of Wistar, in possession of the author.

The year following his graduation Dr. Wistar returned to Philadelphia, a candidate for public confidence. In 1789, he became a trustee of the College of Philadelphia, which had just been resuscitated by the Legislature, and very soon accepted the chair of Chemistry, as is stated by his biographer, Judge Tilghman, in "order to preserve an influence, to be exerted at the proper season, in effecting that arrangement which concentrated the talents of the city upon a single object, and gave just eclat to the labors of the distinguished men who constituted the Medical Faculty of the University."

From the time that Dr. Wistar assumed the duties of Adjunct Professor of Anatomy, in 1792, he devoted his whole energy and the resources of his well-instructed mind to maintain that important branch—the foundation of all medical knowledge—on the highest level of efficiency; and not only did he sustain himself without detriment to his reputation in contrast with the fair fame of Shippen, but from year to year surpassed himself. To quote the language of a biographer, "as his class increased in numbers, as was annually the case, and he perceived that he was operating on a wider scale, Dr. Wistar felt the responsibilities of his station augmented. He did not, as many are known to do, hold himself privileged to relax into indolence and the enjoyment of comparative ease, because his fame was established and his fortune made. He recognized in that fame, which drew yearly around him a greater crowd of pupils, nothing but an obligation to maintain and augment it by higher exertions and a more efficient discharge of duty."

"To the elevation, as a teacher, he ultimately attained, his ascent was gradual, not rapid. It was the result of a lifetime of persevering labor, his achievements in the last surpassing those of the preceding year. Had he lived to complete the course of lectures, in the midst of which it was the pleasure of Heaven to terminate his career, it would have been decidedly the most excellent he ever delivered."[1]

With respect to the mode of instruction adopted by Dr.

[1] Eulogium on Caspar Wistar, M.D., Professor of Anatomy, by Charles Caldwell, M.D., before the Philadelphia Medical Society, 1818.

Wistar at the time he was in full occupation of the chair of Anatomy, the statement of Dr. Horner, in a letter to Judge Tilghman, dated Feb. 1st, 1818, is valuable, in consequence of having come from one so intimately associated with him. It is in the following words: "In reviewing the several particulars of his course of instruction, it is difficult to say in what part his chief merit consisted; he undertook everything with so much zeal, and such a conscientious desire to benefit those who came to be instructed by him, that he seldom failed of giving the most complete satisfaction. There were, however some parts of his course peculiar to himself. These were the addition of models on a very large scale to illustrate small parts of the human structure; and the division of the general class into a number of sub-classes, each of which he supplied with a box of bones, in order that they might become thoroughly acquainted with the human skeleton, a subject which is acknowledged by all to be at the very foundation of Anatomical Knowledge. The idea of the former mode of instruction was acted on for the first time about fifteen years ago. It commenced with a model of wax, representing the bones of the Human Ear. This was followed by a wax model of the Temporal Bone, about eighteen inches in diameter; and one of the External Ear. The benefit attending this mode of instruction became now so obvious that a regular system of modelling was undertaken, and no year since has been passed over without the addition of some such article to his Anatomical Museum."

The large-sized wooden models of the sphenoid, palate, and ethmoidal bones, the temporal bone, and the labyrinth of the ear, as well as of the brain in sections, from which the successive classes of students to the present day, in connection with the demonstrations of subsequent professors, have benefited, were most carefully prepared under the direction of Professor Wistar by Mr. Rush, the most celebrated carver of his time in Philadelphia.

In speaking of this mode of instruction, Dr. Dorsey, in a letter to Judge Tilghman, says, "that, finding it impossible to demonstrate to several hundred pupils at once the minute structure of the various organs, he contrived models on a very large scale, to illustrate these difficult subjects, and though not

the first who had resorted to this method in teaching anatomy, he has more than the honor of invention by carrying the plan very completely into effect. Others had used it in one or two instances; Wistar applied it to every difficult piece of anatomical structure, and in his Museum of Models he has bequeathed a rich treasure to his successors in the Anatomical chair. No one could fail to become an anatomist who diligently attended his lectures."

The preparations made to illustrate the several portions of the body, including injections of the several organs, corroded specimens and wet preparations constituted the anatomical museum of Dr. Wistar, which, upon his decease, was presented to the University by his relict.[1] It was for years styled the WISTAR MUSEUM; but, vastly augmented as it became by the indefatigable exertions of Dr. Horner, and further enriched by the skill and industry of the present Professor of Anatomy, Dr. Leidy, as well as by other contributors, it may safely be regarded as unsurpassed in this country as a collection for teaching purposes.[2]

Dr. Wistar published a work on Anatomy in 1811;[3] and there is no doubt, from the description therein given, "of his having first observed and described the posterior portion of the Ethmoid Bone in its most perfect state, viz., with the triangular bones attached to it." Of this discovery the distinguished anatomist Von Soemmering, of Munich, wrote thus to Dr. Wistar, Jan. 17, 1819: "The neat specimens of Ossa Sphenoideum and Ethnoideum are invaluable additions to my Anatomical Collection, having never seen them myself in so

[1] On the reception of this gift the following resolution was passed: "That the Anatomical Museum presented to the Trustees for the use of the Medical School by the family of the late Professor of Anatomy, Dr. Caspar Wistar, be styled the *Wistar Museum.*"

[2] The Museum at present contains, in addition to what has been stated, a large collection of materials for illustrating the Chair of Practice, procured by Dr. Wood in Europe, when first assuming its duties, and subsequently augmented by him; also the Materia Medica collection, and the materials pertaining to all the demonstrative branches. There are also in it some curious wax models by Dr. Chovet, donated by the Pennsylvania Hospital. Dr. Chovet was a French physician, who taught Anatomy to private classes as early as 1775.

[3] System of Anatomy.

perfect a state. I shall now be very attentive to examine these processes of the Ethmoid Bone in children of two years of age, being fully persuaded M. Bertin had never met with them of so considerable size, nor of such a peculiar structure."[1]

As a teacher Dr. Wistar "brought to the Anatomical Theatre his deep and various learning, his habitual feelings, and even something of his colloquial vivacity. Although he was strikingly fluent and truly learned, still, there was something in his eloquence peculiarly his own. His was the eloquence of sentiment rather than of manner; and his persuasiveness owed almost as much to his disposition as to the great importance of the truths that he unfolded."

"He seemed to have identified Anatomy with his common thoughts, and the language in which he expressed himself seemed like the appropriate expressions of his familiar conversation."[2]

The specialty which Dr. Wistar cultivated with so much success did not preclude attention to other branches of science. His reputation rests doubtless upon his success as a writer and teacher of Anatomy, but, as has been stated, he commenced his professional career as a teacher of Chemistry, with which branch he had acquired considerable familiarity when pursuing his studies abroad. He was also versed in Botany and Mineralogy, and was so much interested in the discovery of organic remains on this continent, then first attracting the attention of the scientific world, as to institute steps to secure their preservation. The prosecution of this most laudable enterprise, in which so much reputation has been gained of late years, was arrested by his death.

The scientific reputation of Dr. Wistar, as well as the extended information possessed by him, induced his associates in the Philosophical Society to elect him its President in 1815, as the successor of Jefferson. Prior to this he had served the Society in the capacity of Vice-President, to which position he had been chosen in 1795. He was in the habit of receiving his friends and scientific strangers at his house on Sunday

[1] Letter in Tilghman's papers for the Life of Dr. Wistar.
[2] Dr. Caldwell's Eulogium.

evenings. Upon his death a social circle was formed among the members of the Philosophical Society, to which was given the name of Wistar Parties. The meetings were held on Saturday evenings, and continued until within a few years.

Dr. Wistar died on the 22d of January, 1818, before the conclusion of his course, at the age of fifty-eight years, in the maturity of his intellectual force, and at the highest point in his profession to which earthly ambition can aspire. "Beloved, respected, honored by all who knew him, his virtue had secured him the affections of his friends, his talents and industry the respect and esteem of the community in which he lived."[1]

The Chair of Anatomy, thus suddenly vacated, was filled May 5, 1818, by the election of Dr. John Syng Dorsey, who had supplied the void in the session occasioned by the untoward event of Dr. Wistar's death.

On July 7, 1818, Dr. Coxe was transferred from the Professorship of Chemistry to that of Materia Medica. At this time the title of the Chair was changed in accordance with the action of the Board of Trustees, to wit: "Resolved, that the Professor of Materia Medica be henceforth styled Professor of Materia Medica and Pharmacy, and that teaching the Principles of the Pharmaceutic Art shall be a part of his duties."[2]

The Professorship of Chemistry, vacated by the transfer of Dr. Coxe, was conferred, Sept. 18, 1818, on Dr. Robert Hare.

At the commencement of the course in 1818, another heavy misfortune befell the University in the death of Dr. Dorsey. This event occurred on the 10th of November.

Dr. John Syng Dorsey was a native of Philadelphia, and was born in 1783. He was educated at the Friends' Academy, and at the early age of fifteen years commenced the study of Medicine with his uncle, Dr. Physick. At the age of nineteen he

[1] Memoir of Dr. Caspar Wistar by Caspar Morris, M. D.; Lives of Eminent Physicians and Surgeons, &c., edited by Samuel D. Gross, M. D., &c. We would refer to this excellent memoir for a true portraiture of the character and moral qualities of this distinguished Professor.

[2] The change of title was published at the time of the annunciation of the lectures of 1819. It was probably made with reference to the granting of Degrees in Pharmacy, although it was only the recurrence to the old title of the Chair. See ante, p. 93.

was admitted to the Doctorate at the Commencement of 1802; the Trustees, upon application to them, having dispensed with the rule which prohibited the conferring of the degree of M. D. on any one who had not attained the age of twenty-one years. His thesis was upon "The Powers of the Gastric Juice as a Solvent for Urinary Calculi." It was published in the series of Theses edited by Dr. Caldwell.

In 1803 Dr. Dorsey went to Europe, and after spending a year improving himself in medicine, and especially in surgery, returned to his native city in 1804. In 1807 he was chosen Adjunct to his uncle in the Chair of Surgery, and in that position continued until the decease of Dr. Barton, in 1815, when he was elected to the Professorship of Materia Medica. In this position he remained until the spring of 1818, when, by the death of Dr. Wistar, the Chair of Anatomy was left without an occupant. For this position he was well adapted by education and experience, and was elected to it with universal approbation.

At the time this new mark of confidence of the honorable Board of Trustees was conferred, sanctioned by the medical public, Dr. Dorsey was thirty-five years of age, and exhibited all the enthusiasm of a zealous, rightly inspired, ambitious candidate for reputation in the field of enterprise before him. The course was opened, and on the 2d of November he delivered his Introductory Lecture, which, from the portions published, was full of correct sentiments and elevated thought. It was the last delivered by him. In its preparation the seeds of disease were laid which soon terminated his mortal career.[1] "On the evening of the same day that he pronounced his Introductory Lecture, and while the praises of it still resounded, he was attacked with a fever of such vehemence that in one short week it closed his existence, leaving us only his enviable name and his inestimable example."[2]

While performing the duties of the Chair of Materia Medica,

[1] It is stated that while engaged in the preparation of this lecture, late at night, towards the close of October, his fire went out, and without heeding the circumstance he continued his occupation, retiring thoroughly chilled. To this he attributed his sickness.

[2] Professor Chapman's Eulogium, delivered before the Medical Class of

Dr. Dorsey published a syllabus of his lectures; but previously to this he had given to the public his "Elements of Surgery," which appeared in 1813. This work may be regarded as a faithful exponent of the surgery of the day, as it was taught by Dr. Physick, of whose opinions and mode of practice it was the record; and as it was practised by the author himself, whose position as a surgeon of the Pennsylvania Hospital gave him great opportunities for the acquisition of skill and experience. In that institution he tied the internal iliac artery, the first time the operation was performed in this country. Dr. Dorsey was well versed in the literature of European Surgery, and familiar with its condition from personal observation.

The Chair of Anatomy being a second time within the year deprived suddenly of its incumbent, its duties were temporarily performed by Dr. Physick, who was assisted in meeting the additional responsibilities thus thrown upon him by the anatomical skill and dexterity of Dr. Horner. In the following year Dr. Physick was prevailed upon to resign the Professorship of Surgery and accept that of Anatomy, to which he was elected, July 13th, 1819.

The Chair of Surgery was filled, Sept. 7th, 1819, by the election of Dr. William Gibson, of Baltimore, who at the time was Professor of Surgery in the University of Maryland, and enjoyed a high reputation as a practitioner and teacher; and in 1820, Dr. William E. Horner was appointed Adjunct Professor of Anatomy.

the University, 1st of March, 1819. Philadelphia Journal of Medical and Physical Sciences, vol. 1st.

A very interesting Memoir of Dr. Dorsey has been written by Dr. Samuel D. Gross, Professor of Surgery in Jefferson Medical College, and published in his "Lives of Eminent American Physicians and Surgeons of the Nineteenth Century." Another memoir was published by the Rev. Dr. Janeway.

## CHAPTER XII.

Degrees in Pharmacy—Foundation of six studentships in the Medical Department—Appointment of Dr. Dewees Adjunct Professor of Obstetrics and the Diseases of Women and Children—Settlement of the ad eundem footing of other Schools of Medicine—Application for the transfer of the Botanical Professorship to the Medical Faculty—Appointment of Dr. Samuel Jackson as an Assistant to the Professor of Practice, &c., to teach the Institutes of Medicine—Resignation of Dr. Physick, sketch of his life and services—Election of Dr. Horner to the Chair of Anatomy.

PRIOR to 1821 no public facilities were afforded to apothecaries in the way of regular scientific instruction, nor were inducements held out for the encouragement of their apprentices to qualify themselves thoroughly in the practice of the Pharmaceutic art, which is subordinate to medicine, and indispensable to the success of the physician.

It will be found recorded on the Minutes of the University that, in 1816 and 1817, Dr. James Mease applied for permission (which was granted) to deliver the Introductory to his Lectures on Pharmacy in the College building. This was the first attempt, by private lectures upon the branch, to improve its condition. Upon the recommendation of the Professors of the Medical Faculty steps were taken by the Board to meet the urgent want presented, and on the 21st of February, 1821, the following resolutions were adopted:—

"1. That the degree of Master of Pharmacy be, and is hereby instituted, to be conferred hereafter by the Trustees of this University on such persons exercising or intending to exercise the profession of an apothecary as are and shall be duly qualified to receive the same.

"2. That the Faculty of Medicine be requested to report to this Board at their next meeting a proper form of diploma, and also a list of such apothecaries in the City and Liberties of Philadelphia as are desirous, and, in their opinion, deserving of the degree of Master of Pharmacy, and unless subsequent

reason to the contrary shall appear, the degree of Master of Pharmacy shall be conferred on such individuals respectively.

"3. That every person who shall have served a regular apprenticeship, of at least three years, with a respectable Apothecary, or a Master of Pharmacy, and who shall exercise or intend to exercise the profession of an Apothecary, in this State or elsewhere, may, on application to the Board, obtain the degree of Master of Pharmacy: Provided he shall produce a certificate of the Faculty of Medicine, signed by the Dean thereof, of his being qualified to receive the same, which certificate the Faculty may grant on the attestation of the Professors of Chemistry and Materia Medica and Pharmacy, who shall have examined the candidate. He must also produce a certificate of his good moral character.

"4. That in future it shall be requisite for obtaining such degree that the candidate shall have attended at least two courses of Lectures on Chemistry and Materia Medica and Pharmacy in this University."

At the ensuing Commencement in April, 1821, sixteen gentlemen of Philadelphia engaged in the practice of pharmacy received the degree of Master of Pharmacy.

This procedure on the part of the University, in the matter of improving and elevating the practice of pharmacy, aroused the enterprising spirit of the druggists and apothecaries of Philadelphia, and incited them to found a "College of Pharmacy," an independent institution, which, through the instrumentality of its school and of its journal, and by its vigilance with reference to the conduct of its members, has been of incalculable service to the profession of pharmacy, not only in the city of Philadelphia, but throughout the United States.

Another step taken by the Medical School in 1821 is not without interest. In November the Medical Faculty addressed a communication to the Board of Trustees relative to the gratuitous admission of students. The terms of the proposition and the action of the Board sanctioning them are thus presented on the Minutes of April 2d, 1822:—

"The Committee to whom was referred the letter of the Dean of the Medical Faculty, of the 5th of November last, on the subject of admitting six students to gratuitous admission,

report the following preamble and resolutions. The Board, taking into consideration the letter of the Medical Faculty communicating that the Faculty, desirous of extending the advantages of a medical education to deserving characters who may be unable to pay the fees of attendance, had resolved to establish, under the directions of the Trustees, a foundation of six studentships, for the gratuitous reception to these lectures of six students *annually*, to be recommended to the Board of Trustees in any manner they may please to adopt.

"Resolved, that a Committee of three in number be appointed by the Board, to be denominated a Committee on the foundation of six studentships, whose duty it shall be to give public notice, in due season, before the commencement of each course of Medical Lectures in this University, that applications will be received for the gratuitous admission to the Medical Lectures of six students, whose circumstances may not enable them to pay the expense of admission to said lectures.

"That the said Committee shall, on the first Monday in September of each year, examine and determine upon such applications as shall be made to them, and shall, as soon thereafter as convenience will permit, distribute the proper tickets to such applicants as they may approve, and give notice thereof to the Dean of the Medical Faculty.

"It will be expected that the applications made to the said Committee shall be accompanied by testimonials of the following qualifications: 1st, that the applicant is of good moral character; 2d, that he is in such restricted circumstances as to be a proper object of this foundation; 3d, that he shall have attained the age of eighteen years; 4th, that he is possessed of sufficient literary acquirements, and of studious habits.

"Resolved, that the said Committee have authority to prescribe such regulations for the form and manner of the transmission of application to be made to them as they may judge expedient."

Under this benefaction twelve gratuitous students, at least, are annually upon the books of the Medical Faculty.

In 1824, the growing infirmities of age, in addition to the toil of a laborious life, prevailed with Dr. James to seek assistance in the performance of the duties of the Chair of "Obstetrics

and the Diseases of Women and Children." This was acceded to on the part of the Board of Trustees. The resolution of the Board is as follows:—

"Be it ordained that an Adjunct Professor of Midwifery shall be appointed, who shall hold his appointment so long as Dr. James continues to be Professor of Midwifery; Provided that the expenses of the students shall in no manner be increased by such appointment, and that such Adjunct Professor shall not have any vote in the Faculty of Medicine, except in the absence of the Professor of Midwifery to whom he is Adjunct."

In accordance with this resolution, Dr. William P. Dewees was, on November 15th, 1825, elected Adjunct Professor.

In 1825, the subject of an "ad eundem" footing was settled on more liberal principles than had previously prevailed. It has been shown that the question of admission of students of other schools was considered in 1805, and then placed upon the individual merits of each case. In 1811, a general rule was adopted by the Faculty which imposed the necessity of attendance upon two courses of lectures in other institutions and one in the University as a qualification for graduation. On the 20th of August, 1825, the Trustees passed the subjoined resolution, which indicates the footing on which students of other schools shall be received, and which has always been adhered to since that time:—

"Be it ordained and enacted, that students who produce satisfactory testimonials of their having attended one or more courses of lectures in any respectable Medical School in the United States, organized on the plan of the School of this University, and having attended one full course in this School, and having in all other respects complied with the statutes, and being found on examination to be duly qualified, may be admitted to the degree of Doctor of Medicine, it being understood that nothing is hereby intended to be dispensed with which requires an attendance on two courses of lectures in this Institution."

During the same year (1825) Dr. William P. C. Barton addressed a communication to the Trustees, desiring to have his Professorship of Botany again attached to the Medical Department; whereupon a report was made by the Committee to

whom the communication was referred, to wit: "That it is of great importance to keep the Departments of Medicine and Natural Science under their present distinct arrangement, and that if at this or any other time it should be thought proper to make Botany a part of the necessary medical instruction, it will be most expedient to do so by the establishment of a new Professorship in the Medical Faculty, and not by the transfer of a Chair from one Department to another."[1]

In 1827, it was deemed expedient to aid the Chair of the Theory and Practice of Medicine and Institutes of Medicine, in consequence of the wide range embraced by it. To effect this Dr. Samuel Jackson was chosen Assistant to the Professor, whose duties consisted in giving lectures upon the Institutes of Medicine. This he continued to do twice weekly, until the re-establishment of the Chair of Institutes in 1835.

At the termination of the session 1830–31, Dr. Physick resigned his active connection with the school, and was appointed Emeritus Professor of Surgery and Anatomy. The Chair of Anatomy was conferred on Dr. Horner.

Philip Syng Physick was born in Philadelphia in 1768, the year of the first Medical Commencement. After the requisite preparation in classical studies by Robert Proud, teacher of Friends' Academy, and the historian of Pennsylvania, he was admitted to the Department of Arts of the University of Pennsylvania, where he graduated Bachelor of Arts in 1785. The same year he commenced his medical studies under the direction of Dr. Kuhn, and attended the lectures delivered in the University.

In 1788 he embarked for Europe, and for two years resided in London, as a pupil of John Hunter and part of the time as House Surgeon of St. George's Hospital. In proof of the estimation in which Dr. Physick was held while occupying this position, reference may be made to the laudatory testimonials of his medical qualifications and correct deportment from the governing authorities of that hospital. At the expiration of his services in the hospital, he received a license from the

[1] Soon afterwards Dr. Barton resigned his Professorship of Botany in the University to take that of Materia Medica in the Jefferson Medical College.

Royal College of Surgeons of London. It is stated that, at the conclusion of his studies in England, Mr. Hunter invited him to settle in London and to take a share in his professional business. In his Treatise upon the Blood, Mr. Hunter awards to Dr. Physick the credit of many of the experiments therein described.

The winter of 1791–92 was passed by him in Edinburgh, in attendance upon the lectures of the University, from which, at the conclusion of the course, he received the degree of M. D. His thesis, written in Latin, was entitled "De Apoplexia," and dedicated to John Hunter.

There are two interesting facts in connection with his graduation as Doctor of Medicine, which may be noticed; the one, that it occurred at the time of the coalition between the two Faculties in Philadelphia, and the permanent establishment of the University of Pennsylvania, of which he was destined to become so conspicuous an ornament; the other, that he was placed upon an ad eundem standing with the University of Edinburgh, and permitted to graduate with attendance upon one course. We are told "that the Professors of the University of Edinburgh were very careful upon whom they conferred its honors, and have never deviated from the resolution they had taken that none should be promoted to the honorable degree of Doctor of Medicine without having studied medicine *at least three years at this or some other University;* at the same time producing certificates of having attended regularly the public lectures prescribed by the statute and submitted to be examined in the most solemn manner by the Faculty."[1] We are not aware of an instance of a similar nature having previously occurred at Edinburgh in the case of an American student.

Upon his return home, Dr. Physick was soon called upon to exercise his knowledge and his skill in aid of his terror-stricken and afflicted fellow-citizens, during the fearful epidemics of yellow fever that prevailed from 1793 to 1798. In the latter year he filled the post of Resident Physician in the City Hospital (Bush Hill), where his post-mortem examinations still further confirmed him in the opinion he had previously entertained

[1] Bower, History of the University of Edinburgh.

with respect to the gastric origin and character of the disease. In 1794 he became one of the surgeons of the Pennsylvania Hospital, where he not only attracted notice by his great expertness and skill, but by his lectures. His regular private course was commenced in 1800, and gave the promise of that reputation and authority he possessed in after years, which have truly warranted the appellation applied to him, "Father of American Surgery."

Having been elected Professor of Surgery in the University of Pennsylvania in 1805, Dr. Physick was from that time in the possession of the widest field for the exercise of his talents, "and was listened to by the large classes in the University, through the members of which he could disseminate the principles of surgery imbibed from his celebrated preceptor, John Hunter—strengthened and enforced by his own meditation and personal experience obtained in hospital and private practice."[1]

The lectures were carefully written out, and delivered with the manuscript before him or in his hand; for it was an axiom with him that, on so important an occasion as the instruction of youth in an art so necessary to the well-being and happiness of mankind, every care should be taken to render the inculcation of principles and practice clear to the comprehension of students. To be ready with these lectures, his habit was to rise early in the morning and carefully study them before he breakfasted, so that in the delivery nothing would be trusted to the mere effort of memory or the impulses of the moment. To be enabled to do this he retired early, his feeble health entailing upon him the necessity of more than the usual

[1] Life of Dr. Physick, by John Bell, M.D. Lives of Eminent Physicians and Surgeons. Edited by S. D. Gross, M.D.

The Life of Dr. Physick was written by his son-in-law, and entitled "A Memoir of the Life and Character of Philip Syng Physick, by Jacob Randolph, M. D., Lecturer on Surgery. Read before the Philadelphia Medical Society, 1839.

Another Memoir, entitled "Necrological Notice," &c., was written by William E. Horner, M.D., Professor of Anatomy, University of Pennsylvania. Read before the Philosophical Society, May 4th, 1838.

Dr. Caldwell, of Louisville, Ky., also published a notice of the Life of Dr. Physick in the Louisville Journal.

amount of rest to sustain him under the labors performed for many years of his busy life.

Dr. Bell remarks that "Dr. Physick's impressiveness as a lecturer arose from his entire mastery of his subject, which he was careful never to magnify beyond its due proportions, and hence he always kept it within his grasp. The same thoughts and inculcations might have been uttered in a more masculine, certainly in a more ornamental style, compatibly with good taste, but it is not certain that the essence itself would have been productive of a stronger sensation, or been longer remembered by its being blended with these pleasant adjuvants."

Much comment has been indulged in with respect to the expediency of the step taken by Dr. Physick in acceding to the transfer of himself from the Chair of Surgery to that of Anatomy in 1819. The feeling at the time, and subsequently, was that a descent had been made from a position in which he was *facile princeps* to one where his eminent knowledge and skill were lost, and which might have been filled with equal, if not even greater efficiency by another individual. In any position, Dr. Physick was capable of commanding respect; his dignified bearing and imposing presence, his emphatic manner and painstaking execution of his duties, deeply impressed his pupils, and commanded the profoundest deference. We know from personal experience that the portions of the course of anatomy delivered by him were listened to with earnest attention; and the writer well recollects the last lecture delivered by this eminent man, at the conclusion of the course of 1830. It was upon the blood; a subject upon which he had experimented with Hunter. With the manuscript before him he descanted minutely upon all the points connected with the subject, and, with the interest almost of an enthusiast, performed the experiments. In this lecture he digressed to comment, in terms and with gestures eloquent from their force alone, upon the practice of vivisections, which to his sensitive feelings had always been repugnant, and earnestly to discourage their performance. It was the honest outbreak of his soul in public, accompanied by a flash of emotion which vividly affected the minds of all who heard him.

The health of Dr. Physick did not permit him to assume the entire labor and fatigue of instruction, and during the period

of his connection with Anatomy, embracing twelve sessions, a large share of the work devolved upon his adjunct, Professor Horner.

Although having withdrawn himself from his public occupation as a teacher, and in a great measure as a practitioner, Dr. Physick took part in important cases whenever his health permitted, until a short time before his death. In the autumn of 1831, he performed the operation of lithotomy successfully upon Chief Justice Marshall, then in the seventy-fifth year of his age; an operation remarkable in view of the professional position of both the individuals concerned in it, as well as of the advanced age of the patient. The oldest and the first of the legal profession in the United States had sought relief from the most painful of maladies at the hands of the oldest and first of American surgeons, whose effort to relieve him was blessed by Providence.[1] This was not, however, the last operation of Dr. Physick, as he performed one on the eye four months before his decease. He died on the 15th of November, 1837, at the age of sixty-nine years.

Dr. Physick himself published little. Some papers, hardly more than half a dozen, referring to cases, or the description of instruments and surgical appliances, are to be met with in contemporaneous journals. For the account of the improvements in Surgery made by him, the world is indebted to others. To the Treatise on Surgery by Dr. Dorsey, and to the Memoirs, more particularly those of Drs. Randolph and Bell, must reference be made for an enumeration of the contributions to the especial department of this eminent Professor.[2]

[1] For the interesting details of this operation, see Life of Dr. Physick by Dr. Randolph.

[2] In the North American Medical and Surgical Journal, vol. ii. p. 269, is an account of Dr. Physick's operation for artificial anus, by Benjamin H. Coates, M. D. In the same volume, p. 192, is a vindication of Dr. Physick's claim to originality in its performance.

## CHAPTER XIII.

Resignation of Dr. James—Sketch of his life—Dr. Dewees elected Professor of Obstetrics—Retirement of Dr. Coxe from the Chair of Materia Medica—Sketch of his life—Restitution of the Chair of Institutes—Election of Dr. Jackson to it—Election of Dr. Wood to the Professorship of Materia Medica and Pharmacy—Resignation of Dr. Dewees and election of Dr. Hodge—Sketch of the life of Dr. Dewees—Faculty as organized in 1835.

In 1834 Dr. James resigned the Chair of Obstetrics.

Thomas Chalkley James was of a family attached to the Society of Friends. He was born in the city of Philadelphia in the year 1766, and was educated under the superintendence of Robert Proud. His medical studies were conducted under the direction of Dr. Kuhn, and in 1787 he took the degree of Bachelor of Medicine at the University of Pennsylvania. The following year he accepted the position of Surgeon of an East Indiaman,[1] and made a voyage to China, with the view of acquiring funds for a contemplated visit to Europe, to finish there his medical education. In this adventure he was successful, as the trade with the East was at that time very lucrative, and the situation of surgeon on board a trading vessel afforded greater opportunities of material profit than have subsequently been presented.

In the year 1790, that of his return from China, he embarked for England, where he found his compatriot, Dr. Physick, pursuing his studies at St. George's Hospital. By this gentleman's advice he entered, in May, 1791, as house pupil of the Story Street Lying-in Hospital, under the care of Drs. Osborne and John Clarke, two leading obstetrical teachers and practitioners of London. While in the capital of England, he received courteous attentions from Dr. Letsom, who belonged to the same religious society as the family of Dr. James. He attended the lectures

[1] The father of Prof. Stillé was supercargo of the Indiaman.

during the session of 1792–3 at the University of Edinburgh, to which, however, he did not apply for a diploma.[1] In the summer of 1793 he returned to Philadelphia, and witnessed, as an active participant, the scourge which that season devastated the city. Dr. James was not prevented by his religious scruples from taking part in the patriotic movements of the day, or from serving the cause of his country in upholding its government and laws. When the young men of Philadelphia were called upon by General Washington, in 1794, to lend their aid in the suppression of the rebellion which first threatened the stability of the newly-formed Republic, Dr. James proffered his services, and joined the army, which marched from Philadelphia to suppress the disturbance in the western counties of Pennsylvania, which is known as the "Whiskey Insurrection." He joined the expedition in the capacity of Surgeon of "McPherson's Blues," a *corps d'élite* of young gentlemen, who had promptly tendered their services at the request of their President.[2]

The expedition was a bloodless one, from the force employed, which overawed the insurgents; but it tried the spirits and endurance of these delicately educated youths, and sometimes subjected them to depression. To dispel this, in a measure, fell to the lot of Dr. James, who, upon a drum-head, wrote an inspiring song, which was set to music, and sounded through the camp with renovating accents.

Upon settling himself, again, a candidate for practice, Dr. James chose the branch of Obstetrics as the vocation of his life; and, from that time to the termination of his career, gave

[1] Dr. James did not receive the degree of M. D. until his election to the Professorship of Midwifery in the University, when, at the Commencement of 1811, the Honorary Degree was conferred upon him.

[2] For an account of the body of troops mentioned reference may be made to Watson's "Annals of Philadelphia," vol. i. p. 331, 2d ed.; and for the history of the political troubles of the time, to Marshall's "Life of Washington," vol. v., and the papers of the day. With reference to the readiness with which the military of the city responded to the call of their chief, and the gratification this evidence of their patriotism afforded him, the following statement was given me by a member of my family long since deceased. As a boy he made his way to near the stand of Washington, on his own door-step in Market Street, below Sixth, from which the troops were reviewed, and heard him distinctly say, with emotion, as the Blues marched by him, "God bless you!—God bless you, young gentlemen!"

to it his undivided attention and the exercise of his cultivated intellect. Preparatory to the position he assumed in the University, as has been detailed, he commenced, in 1802, a regular course of lectures upon Obstetrics, in conjunction with Dr. Church.[1] With respect to these lectures, we are told that, "to render his teaching useful, Dr. James, assisted by Dr. Church, not only employed the usual modes of illustration, but zealously endeavored to instruct practically, as well as theoretically. For this purpose his influence and exertions prevailed in having a Lying-in Ward, the first in the city, established at the Almshouse, over which he presided as attending Accoucheur."[2] This was not, however, the first movement made to open a ward in that institution; he had been anticipated in that respect by Drs. Bond and Evans as early as 1770. To Drs. James and Church is due the credit of reviving the enterprise, and of having founded the present Obstetrical department of the Almshouse.[3] The association with Dr. Church did not long continue, terminating by the death of that gentleman, soon after which a new alliance was entered into between Dr. James and Dr. Chapman, which, as an ultimate result, led to the introduction of both of them to the halls of the University.

In 1807 the Obstetrical department of the Pennsylvania Hospital went into operation, intended for the accommodation

[1] These gentlemen, in 1803, requested permission to give a course of lectures on Midwifery, in one of the rooms of the University, which was granted. In 1804 a similar request was made by Drs. Dewees and Chapman. It was, however, deemed inexpedient to introduce private lectures, and this request was declined, with that of Drs. James and Church, to repeat their course.

[2] A Memoir of Thomas C. James, M. D., read before the College of Physicians of Philadelphia, by Hugh L. Hodge, M. D., Professor of Obstetrics in the University of Pennsylvania, 1843.

[3] A similar origin of Hospitals for Lying-in Women may be referred to in England. Dr. Richard Manningham, in the year 1737, established a ward, or small hospital, in the Parochial Infirmary of St. James, Westminster, for the reception of parturient women only, which was the first thing of the kind effected in the British dominions. In this ward, which was supported by public subscription, he gave lectures, and the students had opportunities of being qualified for practice. He published a "Compendium Artis Obstetricæ," and other works. (*See* Denman's Historical Introduction to his "Treatise on Midwifery.")

of poor respectable married women. Singular as it may appear, it was founded by the gallant and patriotic young gentlemen of Philadelphia, who formed the "*First Troop of City Cavalry.*" Their pay for services due them by the Government at the end of the Revolutionary war was generously donated for this especial purpose. The interest of the sum thus appropriated amounted annually to between five and six hundred dollars.[1] At the time of opening these wards, Dr. James was elected Accoucheur of the Hospital, and continued in office until 1832.

Dr. James did little as a writer; he read papers occasionally upon obstetrical cases, or kindred subjects, before the College of Physicians, of which he was elected the fourth President in 1835. As one of the editors of the "Eclectic Repertory," he contributed to its success by his industry in selecting materials for publication, as well as by his pen as a journalist;[2] but no elaborate work upon his especial branch was attempted by him, and he contented himself most modestly with editing "Burns' Principles of Midwifery," and "Merriman's Synopsis," which were published as text-books for the students attending his lectures. He died in 1835.[3]

In 1835 the Chair of Materia Medica and Pharmacy became vacant by resolution of the Board of Trustees. From the year 1819 this professorship had been held by Dr. Coxe.

Dr. John Redman Coxe was born in New Jersey, in 1773, and was educated in Philadelphia under the charge of his grandfather, Dr. Redman, until his tenth year, when he went to England and remained until his seventeenth year. In Edinburgh he completed his classical education, and attended a course of medical lectures at the University of that city. In 1790 he returned to America, and after studying medicine

[1] The first intention of the Trustees of this fund was to establish a Foundling Institution. From this they were diverted by the arguments of the Managers of the Hospital, and determined, in the application of the money, to found an Obstetrical Ward. (*See* Records of the First Troop Philadelphia City Cavalry, and Minutes of Pennsylvania Hospital.)

[2] The "Eclectic Repertory," conducted by an Association of Physicians, was begun in 1811, and terminated in 1820.

[3] In the "Lives of Eminent American Physicians and Surgeons," is one of Dr. James, by Caspar Morris, M. D.

regularly with Dr. Rush, graduated at the University of Pennsylvania in 1794. The subject of his Thesis was Inflammation. He witnessed the epidemic yellow fever of 1793, while a student of medicine. After graduation, Dr. Coxe again visited Europe, and remained a pupil of the London Hospital for one year; he subsequently studied in Edinburgh and Paris, and returned to Philadelphia in 1796.

In 1797 Dr. Coxe served as one of the resident physicians of Bush Hill Hospital, under the charge of Drs. Physick and Cathrall, when, as Dr. Bell informs us, there were only twenty-three or twenty-four physicians who remained at their posts in this epidemic, and eight of their number died.[1]

Dr. Coxe was appointed, by the Board of Health, Physician of the Port in 1798, the period of another great visitation of yellow fever. He was likewise, for several years, Physician of the Philadelphia Dispensary, and of the Pennsylvania Hospital. He was, at the commencement of the present century, an earnest, enthusiastic advocate of vaccination. After vaccinating his oldest child, then an infant, at the time the full efficacy of the practice was still in suspense in the public mind, he fully tested it by exposing him to the influence of smallpox. The result of this, then bold experiment, contributed in no small degree to establish reliance on the protective power of vaccination.[2]

It has been stated above that Dr. Coxe succeeded Dr. Woodhouse in the Chair of Chemistry in 1809, and that he was transferred to that of Materia Medica and Pharmacy in 1819. He was possessed of considerable classical attainments, and was well versed in the ancient literature of Medicine. The doctrines and opinions of the earlier fathers of Physic had so superior a value in his estimation as to lead to too exclusive an exposition of them in his lectures. This was more particularly the case when occupying the Chair of Materia Medica and Pharmacy; but the merit is due him of opposing the extended assumption of the doctrines of solidism that prevailed, and of giving proper significance to the facts of the humoral physiology and pathology, which were gaining ground from the com-

[1] Life of Dr. Physick, by Dr. Bell, in Gross's "Lives," &c.

[2] Dr. Edward Jenner Coxe, the eldest son of Dr. Coxe, underwent this experiment in 1801.

mencement of the present century, and are now fully admitted. He insisted upon the correctness of the doctrine of the absorption of medicinal substances, and upon the explanation, by it, of their *modus operandi*.

Dr. Coxe at one time was the editor of the "Medical Museum." This periodical was commenced in 1804; the same year as the publication of Dr. Barton, and was continued regularly until 1811. It may be said to be the first uniformly issued periodical in the city of Philadelphia, but not in the United States, as, in this respect, the city of New York takes precedence.[1]

He published, as editor, the "American Dispensatory," a work largely derived from Duncan's "Edinburgh Dispensatory." In 1808 he published a Medical Dictionary. Late in life he issued an "Exposition of the Works of Hippocrates," and an "Essay on the Orgin of the Discovery of the Circulation of the Blood." In 1829 he introduced, and succeeded in cultivating, the true Jalap plant, thus enabling Mr. Nuttall to determine its real character and position. Dr. Coxe died at the advanced age of ninety years, March 22, 1864.

The vacation of the Chair of Materia Medica and Pharmacy having taken place in 1835, an opportunity was "offered to the Trustees to extend the organization and augment the efficiency of the Faculty, without interfering with the rights of the existing Professors, or increasing the expense of the pupils. That the subjects of Practice and Institutes of Medicine, which had for many years been combined, were together too copious for the time and powers of one Professor, was obvious to all who were acquainted with their great importance, and with the

[1] The "Medical Repository" of New York was projected by Dr. Elihu Smith, assisted by Drs. Samuel L. Mitchell and Edward Miller, and issued in 1797. With reference to this periodical, the biographer of Dr. Miller, his brother, the Rev. Dr. Miller, remarks: "From this work, as a parent stock, have sprung a number of works of a similar kind in Europe and America. It is not recollected by the writer of these sheets that any periodical publication devoted to medicine and medical philosophy, that could be said to be of the same nature with the 'Medical Repository,' had ever before appeared." "The 'Medical and Physical Journal of London' was commenced soon after the appearance of the 'Medical Repository,' with the avowal of the Editor that he took the hint from New York." The extent to which medical journalism has been carried in subsequent years is known to every reader.

vast extension recently given to the single science of Pathology. The necessity of their separation had indeed been recognized in the appointment of an assistant to the Professor who occupied the united Chairs. This appointment, however, was merely provisional. To give their due relative weight to the two branches, and to secure permanently adequate instruction in each, it was necessary to establish a new professorship. The Trustees accordingly decided that the Institutes of Medicine should form the ground of a new Chair."[1] No new creation took place in this arrangement, for it will be recollected that the Chair of Institutes and Clinical Medicine existed when a union of the Faculties of the two schools took place in 1791. With the election of Dr. Rush to the Chair of Practice in 1805, the subjects of both chairs were apportioned to one, and thus continued for thirty-years, when a separation became expedient. The necessity of separation of the two branches, and of the revival of the original professorships, had been urged upon the Trustees in 1823, and again in 1826, by the Medical Faculty. At the beginning of the session of 1827, Dr. Jackson, with the sanction of the Board, had received the appointment of Assistant, and on Dec. 2, 1828, had been elected by the Trustees the Assistant Professor to that position.

On the 6th of October, 1835, Dr. George B. Wood was elected to the vacant Professorship of Materia Medica and Pharmacy, and, at the same time, Dr. Samuel Jackson was elected Professor of the Institutes of Medicine.

In November, 1835, the health of Dr. Dewees, which had been much impaired by age and laborious occupation, completely failed, and after the course of lectures had commenced, he was forced to resign, and was succeeded by Dr. Hugh L. Hodge, on whom the duty devolved of completing the course, and who was on the 14th of the same month elected to the Chair of Obstetrics.

The connection of Dr. Dewees with Obstetrics constitutes an epoch in the history of American Medicine. He was the first authoritative writer on this branch whom the country has produced, and wielded, at the time when his personal influence

[1] Sketch of the History of the Medical Department of the University, issued in 1841, in connection with the Catalogue.

was unbounded, a sway over the opinions of his contemporaries and pupils which directed their practice and controlled their actions. He may truly be regarded as the Father of American Obstetrics.

William Potts Dewees was a native of Pennsylvania, his family being of Scottish origin. He was born in the year 1768. As his family were not in affluent circumstances, in his youth he had to contend with difficulties in obtaining an education, and to make amends for the want of extensive means of intellectual training by industry and perseverance in the use of such as were within his reach.

He determined early to study medicine, and was for this purpose placed by his father in the establishment of Dr. Phyle, a practising apothecary. Under the superintendence of this gentleman he acquired a knowledge of pharmacy and its collateral sciences. He subsequently entered the office of Dr. William Smith, and during his continuance in this position and residence in Philadelphia attended lectures in the University. In 1789, at the age of twenty-one years, he took the degree of Bachelor of Medicine.

The early professional life of Dr. Dewees was spent in the country, at Abington, a settlement to the north of the city. The appearance of the yellow fever, in 1793, having thinned the ranks of the profession in Philadelphia, Dr. Dewees was induced to remove thither in December of that year. He entered upon his new field of duty with the confidence, and, it may be stated, under the patronage of Dr. Rush. His associates and competitors for medical practice at the time were Drs. Physick and James, who had just returned from their sojourn abroad. It was at a period of need in the important branch of obstetrics that Dr. Dewees located himself as a practitioner among the citizens of Philadelphia. Its condition was not flattering, as has already been mentioned. Dr. Hodge informs us that "at that period the science was hardly known in America. The physicians who occasionally engaged in its practice had received no instruction, with the exception of a few, who, having visited Europe, brought home a general knowledge of the subject, but who, from the prejudices existing against the employment of male practi-

tioners, had few opportunities and fewer inducements to perfect their knowledge. Hence midwifery existed almost universally as an art; the aged and imbecile nurse was preferred to the physician." It has been seen that only so far as taught by Dr. Shippen, and as a mere appendage to the Chair of Anatomy and Surgery, from which it received necessarily but little attention, it was comparatively ignored in the medical school as a branch of scientific education. Medical men, therefore, who desired to become adepts in it were under the necessity of visiting Europe, or of relying upon their own resources. To supply the demand for skilful and intelligent assistance in the conduct of labor, Dr. Dewees, with James, Church, and others, directed their attention to this branch, and by rendering themselves especially masters of it, were enabled to communicate their knowledge and experience to others.

No one could realize more fully than Dr. Dewees the want of more extensive and efficient instruction on the subject of practical midwifery, and, to use the words of Dr. Hodge, "we find that he has the high honor of first attempting a *full* course of Lectures on Obstetrics in America.[1]

"In a small office he collected a few pupils, and in a familiar manner indoctrinated them with the principles of our science, toiling year after year, in opposition to the prejudices not only of the community but even of the profession, who could not perceive that so much effort was necessary for facilitating the natural process of parturition."[2] In 1806, Dr. Dewees took the

[1] An Eulogium on William P. Dewees, M. D., delivered before the medical students of the University of Pennsylvania, Nov. 5, 1842, by Hugh L. Hodge, M. D., Professor of Obstetrics, &c.

[2] Reference has been made to the efforts of Dr. Shippen in the early part of his career. Dr. Bond advertised instruction in obstetrics at the Pennsylvania Hospital, under date of October 25, 1781, in connection with his Clinical Lectures. We find in the American Daily Advertiser the announcement of a course, entitled "Anatomical, Chirurgical, and Obstetrical Lectures," by Dr. John Foulke, October 25, 1790.

A course of private lectures was delivered by Dr. Benjamin Duffield. The advertisement of the commencement of this undertaking is as follows: "Dr. B. Duffield's Introduction to his summer Course of Midwifery Lectures will be delivered this day, at Mr. Charles Little's School House, at 6 o'clock in the evening. April 6th, 1793." Dr. Church was a relative of

degree of Doctor of Medicine, his thesis on this occasion was on "The Means of Moderating or Relieving Pain during Parturition." This essay was afterwards expanded and published as a book, which added to the reputation of the author.[1]

When, in 1810, it was determined to erect Midwifery to an independent position in the University, Dr. Dewees became a candidate for the Chair. The struggle, we are told, was "a warm one, and the claims of opposing candidates and the influence of their respective friends rendered the event doubtful. The strong claims of Dr. Dewees, his talents, his industry, his attainments, his dexterity, boldness, decision, and judgment as a practitioner; his great success in the practice of his art; his popularity, supported by the strongest testimonials from many of the distinguished men in the profession, including Drs. Rush and Physick, were met by analogous claims of Drs. James and Chapman."[2] The result has been already stated.

In 1812, Dr. Dewees, under the apprehension of a pulmonary affection, retired from the profession and became a farmer. This change did not result to his pecuniary advantage, and he returned to Philadelphia in 1817. In 1825 he was elected to the position of Adjunct Professor of Obstetrics. He had then passed the meridian of life, he was fifty-seven years of age, but his constitution was firm and his energy untiring. In this secondary post he remained until 1834, when he was elected to the Professorship. He delivered but one course of lectures in this position. On the commencement of the second course his health broke down from paralysis, and his retirement became expedient, both for himself and the school.

Dr. Dewees was a voluminous writer; but his best book is his first, his "Compendious System of Midwifery." Although

Dr. Duffield, and became his successor, to be assisted by Dr. James, as has been stated.

Dr. Hodge does not state the year that Dr. Dewees commenced to teach Midwifery. He settled in Philadelphia in 1793, and hence the probability is that his lectures were after those of Dr. Duffield, and contemporary with those of Church and James.

[1] It is stated that when Dr. Shippen read this Essay, he remarked "that had he previously been acquainted with the information contained in it, how much suffering would have been spared to his patients."

[2] Hodge's Eulogium.

not the first original treatise upon the subject in this country, it attracted the attention of European writers to American authorship.[1] It deviated from the principles of the English authorities, and, while resting upon those of Baudelocque, who was the exponent of the French school of obstetrics, presented so much of original thought and observation as to bestow a high reputation upon the author. "To an American, therefore, the appearance of Dr. Dewees's work on Midwifery is an important epoch in the history of our science, as being the first regular attempt to think for ourselves on Tokology, and to contribute to the onward progress of this important division of Medical Science."[2]

After spending a few years in the Southern States, with a view to the restoration of his health, Dr. Dewees returned to Philadelphia, where he died on May 20th, 1841.

When Dr. Dewees resigned in 1835, the Faculty stood as follows:—

| | |
|---|---|
| Practice of Medicine and Clinical Medicine . . . | NATHANIEL CHAPMAN, M.D. |
| Chemistry . . . | ROBERT HARE, M.D. |
| Surgery . . . . | WILLIAM GIBSON, M.D. |
| Anatomy . . . . | WILLIAM E. HORNER, M.D. |
| Institutes of Medicine . | SAMUEL JACKSON, M.D. |
| Materia Medica and Pharmacy | GEORGE B. WOOD, M.D. |
| Obstetrics and Diseases of Women and Children, . | HUGH L. HODGE, M.D. |

[1] Published in 1826. In 1828, three editions had already been issued. A Compendium of Midwifery was published by Dr. John Bard, of New York, about the beginning of the present century. A second edition appeared in 1811. In speaking of this work Dr. James remarks: "It contains a large mass of practical knowledge compressed into a small space, and to me it appears as one of the best introductory books that can be placed in the hands of the student." (MS. *Introductory Lecture*, 1810.)

[2] Hodge's Eulogium.

The other works of Dr. Dewees were a "Treatise on the Diseases of Females," one on the "Diseases of Children," and his "Practice of Medicine." His papers on various subjects may be found in the journals.

## CHAPTER XIV.

Resignation of Dr. Hare—Sketch of his life—Election of Dr. James B. Rogers to the Chair of Chemistry—Change in the lecture term—Resignation of Dr. Chapman—Sketch of his life—Election of Dr. Wood to the Chair of Practice, and of Dr. Carson to that of Materia Medica and Pharmacy.

FROM the period last mentioned until the year 1847, no change took place in the Faculty. Dr. Hare then resigned the Professorship of Chemistry, to which he had been appointed in 1819. He had been in possession of the Chair twenty-seven years.

Dr. Robert Hare was born in the city of Philadelphia in 1781. After finishing his academic education, he devoted some time to the occupation of a brewer, in the establishment of his father, in which his active mind was engaged upon the chemistry of the manufacture of malt liquors, and of their preservation. While engaged in this business, a barrel was invented by him, partly of iron, for the purpose of resisting the pressure from an extra accumulation of carbonic acid gas. At the age of twenty he entered the Chemical School of the University of Pennsylvania, where, in association with Dr. Benjamin Silliman, he pursued his studies under the direction of Woodhouse.

With reference to that period, Dr. Silliman writes thus in 1809: "When I was appointed to the Chymical Chair of this College (Yale) I was allowed time and opportunities to qualify myself for a station, for which those who appointed me knew I was not at the time prepared. I went to Philadelphia, and was so fortunate as to board in the same house with Mr. Hare. My pursuits and his tastes led us to form a small laboratory, where we pursued Chymistry with much ardour. It is with pleasure that I say that I am greatly indebted to the able assistance and instruction which I received from Mr. Hare at that time, for any progress I made in the Science.

"He had already become, from a great deal of private re-

search, an experienced and able experimenter, and it is no disrespect to the memory of Dr. Woodhouse (whose opinion of Mr. Hare as a chymist and a man of science I know to have been extremely favourable) for me to add that I often derived from the conversation of Mr. Hare, at home, views of chymical science and explanations of chymical phenomena, which greatly aided my comprehension of the lectures, and even supplied deficiencies which may occur occasionally in the public philosophical discourses of the ablest men."[1]

In 1801 Dr. Hare contrived the Oxy-hydrogen Blowpipe, and was awarded the Rumford Medal of the "American Academy of Arts and Sciences." With respect to the discovery of the "Compound Blowpipe," it is well known that a claim has been set up in England, and upon this point the following testimony of Prof. Silliman is conclusive in placing the credit where it is deserved: "In December of the year 1801, Mr. Hare communicated to the Chymical Society of Philadelphia his discovery of a method of burning oxygen and hydrogen gases in a united stream, so as to produce a very intense heat.

"In 1802 he published a memoir upon the subject, with an engraving of his apparatus, and he recited the effects of his instrument, some of which, in the degree of heat produced, surpassed anything before known. In 1802 and 1803 I was occupied with him in Philadelphia in prosecuting similar experiments on a more extended scale, and a communication was made to the Philosophical Society of Philadelphia. The Memoir was printed in the 'Transactions,'[2] and Mr. Hare's original Memoir was reprinted in the 'Annals of Chymistry' of Paris, and in the 'Philosophical Magazine' of London. Mr. Murray, in his 'System of Chemistry,' has mentioned Mr. Hare's results in the fusion of the several earths, &c., and has given him credit for his discovery.[3]

"In one instance, while in Europe in 1806, at a public lec-

[1] Letter from Professor Silliman to E. Bronson, Esq., New Haven, June 15, 1809.

[2] Transactions of the American Philosophical Society, vol. vi. p. 99.

[3] Dr. Hare repeated his experiments in the presence of Dr. Priestley (the discoverer of oxygen), and of Woodhouse, Silliman, and others.—*Silliman's Journal*, July, 1858.

ture I saw some of them exhibited by a celebrated Professor' who mentioned Mr. Hare as the reputed author of the invention.

"In December, 1811, I instituted a course of experiments with Mr. Hare's Blowpipe, in which I melted lime and magnesia, and a long list of the most refractory minerals, gems, and others, the greater part of which had never been melted before; and I supposed that I had decomposed lime, barytes, strontites, and magnesia, evolving their metallic bases, which burn in the air as fast as produced. I communicated a detailed account of my experiments to the Connecticut Academy of Arts and Sciences, who published it in their 'Transactions' in 1812. With their leave it was communicated to Dr. Bruce's 'Mineralogical Journal,' and was printed in the 4th number of that work. Hundreds of my pupils can testify that Mr. Hare's splendid experiments, and many others performed by his Blowpipe, fed by oxygen and hydrogen gases, have been for years past annually exhibited in my public courses of Chymistry in Yale College, and that the fusion of the earths, of rock crystals, gun flint, of the corundum gems, and many other very refractory substances, and the production of light beyond the brightness of the sun, have been familiar experiments in my laboratory. I have uniformly given Mr. Hare the credit of his invention, although my researches with his instrument had been pushed further than his own, and a good many new results added.

"It is therefore with no small surprise that, in the '*Annales de Chimie et de Physique*' for September, 1816, I found a translation of a very elaborate Memoir from a scientific journal published at the Royal Institution in London, in which a full account is given of a very interesting series of experiments performed by means of Mr. Hare's instrument, or one on the same principle, but without any notice being taken of Mr. Hare's invention, or experiments, or mine; and that the whole is exhibited as original. On a comparison of the Memoir in question with Mr. Hare's and my own, I find that very many of the results are identical, and all the new ones are derived from Mr. Hare's instrument with the following difference: In Mr. Hare's the two gases were in distinct reservoirs, to prevent explosion. They were propelled by the pressure of a column

of water, and were made to mingle just before the exit at a common orifice. In the English apparatus, the gases are both in one reservoir, and they are propelled by their own elasticity, after a condensation by a syringe. Professor Clarke, of Cambridge University, the celebrated traveller, is the author of the Memoir in question, and we must presume that he was ignorant of what had been done by Mr. Hare and myself, or he would candidly have adverted to the facts.

"Measures have been taken to set the matter right in Europe, but in the mean time whatever treatment the subject may receive there, it is proper that the American public should know that Mr. Hare was the inventor of the instrument with which in Europe they are now performing the most brilliant experiments, and that there are very few of the results hitherto obtained there by the use of it (and the publication of which has there excited great interest) which were not several years ago anticipated here, either by Mr. Hare or myself."[1]

It appears that, in consequence of no recognition being made of Dr. Hare's claims by Dr. Clarke, although a spirited protest was communicated to him, Dr. Hare entered into a full exposition of his discovery and a complete vindication of his rights before the scientific world, in "Silliman's Journal," vol. 2, 1820.

The injustice above referred to was not, however, universal in Europe. On the part of many gentlemen of high scientific character, the merit of the discovery was given to its rightful possessor. In 1813 the merit of the discovery was acknowledged by Dr. Hope, of Edinburgh, in the following language: "For the invention of this very ingenious machine we are indebted to Dr. Robert Hare, of Philadelphia, a gentleman whose merits claim a distinguished rank among the most successful promoters of Chemistry in the United States of America."[2] When it is recollected that this was spoken at a time that a bitter war existed between Great Britain and this country, we cannot but admire the spirit of scientific candor manifested,

[1] Eclectic Repertory, vol. vi., July, 1819.

[2] A letter from Henry Brevoort, Esq., to John Hare Powell, Esq., dated New York, 1816. Mr. Brevoort was present at the lecture in which the above statement was made by Dr. Hope.

elevated as it was above party feeling, or the causes of national animosity.

The account of this great discovery from the pen of Dr. Chapman may not be superfluous in this connection: "Means of producing a sufficient degree of temperature to melt some of the metals and other refractory substances had long been desired by artists, and hitherto had fruitlessly engaged the attention of chymists. At the suggestion of Mr. Hare, the Chymical Society selected this subject as worthy of examination, and he was appointed to manage the investigation of it. The result of his labors was a discovery which has emphatically been pronounced by a great chymist of Europe to be one of the most important of the eighteenth century."[1]

From the foregoing exposition of the discoveries of Dr. Hare and Professor Silliman, made with the instrument of the former, we may judge of the originality of the "Drummond Light," which is only an application of lime to the flame of the compound blowpipe, the intensity of the light under these circumstances being perfectly familiar to these distinguished chemists, and annually shown to their classes before any practical application was made of it.

On the death of Dr. Woodhouse in 1809, Dr. Hare presented himself as a candidate for the Chair of Chemistry, but was unsuccessful in his application. Soon after he was chosen "Professor of Natural Philosophy for the Medical Department;" but as that position gave no status in the Faculty, he soon accepted the appointment of Chemical Professor in William and Mary College, at Williamsburgh, Virginia, where he continued until his election to the University of Pennsylvania. In 1816 the honorary degree of Doctor of Medicine was conferred upon him by Harvard University.

As a lecturer Dr. Hare was remarkable for the scale of his experiments, which were uniformly successful, and impressed the mind by their grandeur. His apparatus was elaborate, and perfect so far as mechanical skill and ingenuity could accomplish its completion. In galvanism and electricity he invented

[1] Letter from Dr. Chapman to Joseph Hopkinson, Esq. Testimonials submitted to the Trustees of the University, in 1809, by Dr. Hare.

instruments which far exceeded those familiar to the scientific world, and produced results before unknown. His Calorimotor, so named from the facility of generating an immense amount of heat, was described in "Silliman's Journal" in 1820.[1]

Two years later he promulgated, through the medium of the "Philadelphia Journal of Medical and Physical Sciences," a new theory of galvanism, accompanied by descriptions of some new modifications of galvanic apparatus. A modification of his apparatus was termed Dr. Hare's Deflagrator.[2] With respect to it we quote the statement of Dr. Silliman: "It is not less a proof of the merits of Dr. Hare's apparatus that Professor Faraday, in 1835, after having exhausted his ingenuity and experience in perfecting the voltaic battery, found that Dr. Hare had already, nearly twenty years before, accomplished all that he had attempted, and with a noble frankness, worthy of all praise, he at once adopted Dr. Hare's instrument, as embodying the best results then possible." Its power was sufficient to fuse platinum, with the production of a brilliant light.

He also contrived an improved Gasometer, a Eudiometer, a Litrometer, a Hydrostatic Blowpipe, an apparatus for freezing water by the use of sulphuric acid, a single leaf Electroscope, and numerous smaller improvements in chemical instruments. The description of his working apparatus, employed in his lectures, was given in his "Compendium," a book which, originating in a mere outline or syllabus, was, at the time he left the University, enlarged to a bulky volume.

Dr. Hare was exceedingly fond of discussing the philosophical bearings of the branch of science which occupied the attention of his lifetime, and occasionally promulgated his views in a controversial way in the journals. He thought for himself, and was not unfrequently in disagreement with Berzelius and other prominent chemists of Europe of the time. One subject which much occupied his attention, and gave rise

[1] Vol. 1, pp. 274.

[2] The voltaic pile of numerous pairs produces electrical and but little or no calorific effect. Large surfaces in one to four pairs produce great calorific and but little electrical effect.

to discussion on his part, was the "*Salt Radical Theory.*" A number of his papers were contributed to the pages of the "American Journal of Pharmacy." Some of these refer to the especial subjects to which that journal is devoted, and others were upon nomenclature and more general topics. Although Dr. Hare was not regularly bred to the medical profession, and belonged more especially to that class which may be termed philosophical chemists, yet his mind was directed by his associations to improvements in medicine and its several branches; hence it will be found that he endeavored by his experiments to promote the advance of medical science. The preparations of opium, the ethers, and other medicinal articles, were the subjects of investigation and of suggestions in their formation which were eminently useful. Pharmacy is indebted to him for the method of denarcotizing laudanum; and to Toxicology he gave the method of determining minute quantities of opium in solution. In the latter years of his life Meteorology occupied much of his attention.

The apparatus which Dr. Hare had collected, the greater part of which had been invented by himself, was given to the Smithsonian Institution, at Washington, when he resigned his professorship, and it is deeply to be regretted that the entire collection was destroyed by the fire which laid a portion of that noble structure in ruins.

Dr. Hare died on May 15, 1858, at the age of seventy-seven years. He was succeeded by Dr. James B. Rogers.

The session of 1847–48 was marked by an alteration in the lecture term. Until 1836, it had for a long period in the annals of the school been limited to four months; from that time it was gradually lengthened by the voluntary labors of a portion of the professors. The University is entitled to the credit of having taken the initiative step in this matter. At a meeting of the Faculty, December 31, 1835, it was "resolved that it was expedient to add another month to the Lectures of the Medical Department." In 1836, at the commencement of the session, the proposition of the Faculty was acceded to by the class, and the lectures for a time were continued into March. At a subsequent date preliminary lectures were delivered in October. At the meeting of the National Medical Association in May,

1847, a strong and decided recommendation to lengthen the term of lectures in the schools was adopted by that body. To this the University heartily responded by an extension of the term to six months, and this was maintained for a number of years, when the modifications subsequently made were rendered necessary by the refusal of concurrence on the part of other leading schools. In 1853, the College term was fixed by commencing the course on the second Monday of October, and continuing it to the first of March. The recent introduction of a Supplementary Faculty supplies the defect, which was legislated upon by the Association, and extends the teaching period in the Medical Department to nearly eight months, without additional expense to the student. This provision for additional instruction will again be presented in its appropriate place.

In 1850, Dr. Chapman resigned the Chair of Practice, which he had so eminently filled during the long period of thirty-four years.

He was born in Fairfax County, Virginia, in 1778. His father was George Chapman, of English ancestry, while his mother's descent was Scotch. He was educated at the Classical Academy of Alexandria, and commenced the study of medicine with Dr. Weems, of Georgetown, from whom he was transferred to Dr. Dick, of Alexandria, whose name has been handed down in connection with the last hours of Washington. In 1797 he came to Philadelphia to attend the lectures in the University, and entered the office of Dr. Rush.[1] He graduated in 1800; his thesis was upon Hydrophobia.

Upon the completion of his studies at the University Dr. Chapman went abroad, and in London attended the teachings, among others, of the celebrated surgeon, Mr. Abernethy. He afterwards spent some time in Edinburgh, and returning to the United States settled himself in Philadelphia, in 1804. Very soon after his return from Europe he gave a private course on

[1] A Memoir of Nathaniel Chapman, M. D., by John Biddle, M. D. Lives of Eminent American Physicians and Surgeons. This Memoir contains fuller details of Dr. Chapman's career than any that has been published. It is partly based upon an autograph account of himself by Dr. Chapman, furnished to his relative, Dr. Biddle.

Obstetrics, and his success in this line led to the association with Dr. James, which ultimately brought them under the wing of the medical school.

Having succeeded Dr. Barton in the Chair of Materia Medica, in 1813, Dr. Chapman was fortunate in maintaining the interest that had attached to that important branch; not by Natural History, or even strictly pharmacological expositions, but by luminous explanations of the scope and purposes of the Materia Medica—of its proper application to the cure of disease. In his prelections upon this subject he was especially happy, pointing out in detail the appropriate use of each particular article, and illustrating his remarks by sound appeals to his abundant experience; indeed, his instruction partook so much of a clinical nature, and placed so much valuable practical information at the command of the student, that it could not but fix the attention of the latter, if solicitous to prepare himself for the responsible duties of his profession. In this Chair he laid the foundation of that eminence he attained when called upon again to succeed Dr. Barton, and assume the responsibilities of the Chair of Practical Medicine. His "Elements of the Materia Medica," published in 1817, contain the exemplification of his manner of communicating useful suggestions and practical directions for the employment of medicinal articles. With reference to this work we may appropriately quote the comment of one qualified to express an opinion. In the account of the contributions to this branch of medicine by American physicians, Dr. Wood uses the following language: "Hitherto we had done little more than add to the products of the European press our peculiar knowledge in relation to indigenous medicines. Dr. Chapman took a bolder flight, and by the publication of a systematic and original treatise, containing elaborate doctrine, interesting practical views, and highly important therapeutical facts of a general character, placed us at once upon a footing with English authorship in this department of medicine."[1]

In 1816 Dr. Chapman received his appointment as Professor of the Theory and Practice of Medicine, of Institutes, and Clini-

[1] Introductory Lecture to the Course of Materia Medica, in the University of Pennsylvania, by George B. Wood, M. D., 1840.

cal Medicine in the University. A part of the course of 1815–16 had devolved upon him. His first efforts to teach the Practice of Medicine were decidedly successful; to this, testimony is given by Dr. Coxe, in a letter to Dr. Norcum, of North Carolina, dated May 29, 1818, wherein he says, referring to Dr. Chapman: "His lectures now for three successive courses have been well received, and have each year been improved by his more immediate interest in their perfection." With respect to the performance of the duties of this Chair as it reflected upon his position in the profession, we must agree with the language of one of his biographers, "that he filled it for more than the third of a century with distinguished success, and left it with a national reputation."[1]

At the time of his accession to the Professorship, Dr. Chapman had not attained his thirty-seventh year, and had not been settled in Philadelphia as a practitioner more than twelve years. In allusion to the transfer to the "highest position of honor and trust then known to the medical profession," Dr. Jackson remarks: "In undertaking the duties of this Chair, difficulties were to be encountered that do not beset it in ordinary circumstances. His abilities as a teacher, his knowledge and acquirements as a sound and practical physician, were now to be severely tested."

"The first duty devolving on Dr. Chapman on assuming his new Chair was to settle the plan of his course. A large body of our physicians had been educated in the doctrines of Rush, and they were popular. The old fabric of methodic medicine had been razed to the ground by the assaults of Brown and Rush, while the views and doctrines they had attempted to establish Dr. Chapman had been compelled to abandon as unreal, from the results of his own experience and researches. Medicine, at that time, was at a halt. All the facts that could be known, by the then available means of research and investigation, were exhausted. Nothing new could be expected from them, and all the attempts to work them into a consistent theory had proved miserable abortions."

"Dr. Chapman had no pretensions to be a reformer, that he

[1] Life of Dr. Chapman, by Dr. Biddle, sup. cit.

could change the character of Medicine, or that, by the means at his command as a practising physician, he could elevate it from its position as a highly cultivated art, to a lofty science. At this time General Anatomy was unknown. Pathological Anatomy had revealed only the grosser alterations of the organs. Physiology shed no illuminating ray on Pathology and Practice. Pathology was almost entirely conjectural; Chemistry was incapable of solving the actions of living beings, and the attempts made were deceptions; while the microscope had not poured forth its revelations of minute and elementary structure. What could be done, under these circumstances, but to collect together the most perfect portions of the wreck of the methodical system, which, in reality, were the embodied experience and tested facts of centuries of practical observation, and to rearrange and reconstruct them into systematic order. By this plan he could, in the most effective manner, accomplish the main object of his Chair, the teaching of the best practical methods of treating and curing diseases, and of educating for society sound medical practitioners."[1]

There were two prominent features in the medical teaching of Dr. Chapman, who was a thorough solidist and vitalist. The *first* was his advocacy of the doctrine of association between the organs and systems of the body in health and disease; the agency of their associated actions being due to "sympathy" or consent of parts. This doctrine will be found to be recognized in some form or other through the writings of the most celebrated physicians of all time; but the details of its expression were indefinite and vague, and it was not even admitted that the nervous system was necessary for the harmonious operations of the organs and tissues, for the performance of uniform functional acts; and hence sympathies were spoken of, for want of a more appropriate term, beyond the limits of those now admitted.

Cullen, in his speculations with respect to the agency of the nervous system, had recognized the controlling influence of it

[1] A Discourse commemorative of Nathaniel Chapman, M. D., &c., delivered before the Trustees, Medical Faculty, and Students of the University of Pennsylvania, by Samuel Jackson, M. D., Professor of the Institutes of Medicine, Oct. 13, 1854.

upon the operations of the several organs of the body, and was disposed to attribute the effects of medicines to the operation of sympathy. In the elaborate exposition of his doctrines by his biographer, Dr. Thomson, we are informed that he was aware of the consensual operation of organs through the medium of the nervous system. It was known that sensation and motor power belonged to the nerves, and through them the brain issued its mandates. It was supposed that the ganglionic system controlled the functions of organs, and presided over nutrition; but with all the exercise of ingenuity of Robert Whytt, of Unzer and of Prochaska, of John Hunter and Bichat, nothing had been accomplished towards the development of the true doctrine of sympathy, the determination of the specific functions of the individual nerves, and the agency which special portions of the brain and spinal system exert over them.

The advocacy of pure vitalism, and of the predominance of sympathetic association in the vital operations of the economy, with a dependence for their activity upon the nervous system, characterized the school of Montpellier, first in the teachings of Bordeu, and more particularly in the writings of Barthez. The latter author separated the sympathies into general and particular. To the *general* were referred associations which exist between the organs to maintain their functions (synergies), as well as mechanical and functional relations.[1] A *particular* sympathy, he conceived, is shown to exist between two organs "whenever an affection of one occasions sensibly and frequently a corresponding affection of the other, without its being possible to refer the succession of affections to casual coincidence, to the mechanical action of one organ upon another, or to the synergy or co-operation of several organs in the performance of some particular function, or in the production of some disturbance of the living body. Such sympathy ought not less to be recognized, although it cannot be submitted to constant and general laws; and we are unable to state in what way the modification of an organ primarily affected is necessary for the production of such sympathetic effect; why the sympathy of two

[1] Nouveaux Elémens de la Science de l'Homme. Paris, 1806. Seconde édition, tom. ii. p. 2.

organs is not always reciprocal; why the sympathetic effect is not perpetual, as it ought to be, if the causes of sympathy were mechanical; and why an organ is not affected directly by an irritant cause, in the same way that it is by sympathy from the impression made by this cause upon another organ."[1]

At the commencement of the present century, when the preceding indefinite propositions were written, the functions of particular nerves and of the different portions of the nervous centres were unknown. The discovery of the motor and sensitive columns of the spinal marrow first lifted the veil which concealed the secret machinery of nervous action, and led to the only philosophical method of experimenting—the study of the nerves separately in their functional relations.

It is to be inferred that Dr. Chapman derived his ideas of sympathy from the writings of Cullen, and of the professors of the French school who have been mentioned, and he adhered to them to the termination of his career, during which revelation upon revelation was made in this line of research. By the investigations of Sir Charles Bell, Magendie, Flourens, Müller, Hall, Bernard, Brown-Séquard, and others, sympathy from a mythical condition has assumed a tangible form for the enlightenment and guidance of practitioners of medicine and surgery. The error committed by Dr. Chapman was the rejection of the proof of an introduction into the circulation of medicinal or noxious substances, which has now become irrefragable, and constitutes, in great measure, the foundation of modern medicine.

The second peculiarity of Dr. Chapman's teaching was the prominent part attributed to the stomach in connection with numerous diseases; indeed, the "fons et origo" of a large number of them. He, however, was not a maintainer of the opinion that gastric derangement was uniformly inflammatory; and in this he differed from Broussais, but he fully recognized the stomach as a ruling power in the maintenance of disease, and in directing the means for its removal.[2] In this particular he

[1] Op. citat., vol. ii. p. 3.

[2] The gastric origin of fever was especially insisted on by Dr. Chapman, the fever itself being sympathetic. This doctrine is an old one. In the work of Dr. Currie reference is made to Henry Screta, who early in the eighteenth century revived the opinion of Diocles, attributing all fevers to.

most probably, while in London, was seriously impressed by the opinions and practice of Abernethy, which are as worthy of commendation at the present time as they were when first urged upon the profession by that wise and skilful surgeon. Therapeutics were essentially Dr. Chapman's forte, and in this line, from his ready and abundant resources, he was a master.

In 1820 Dr. Chapman became the proprietor and editor of the "Philadelphia Journal of the Medical and Physical Sciences." In 1825 he was assisted in conducting it by Dr. Dewees and Dr. John D. Godman. This periodical, in 1827, became the "American Journal of the Medical Sciences," and has been continued to the present time under the able editorship of Dr. Isaac Hays.

During his lifetime Dr. Chapman furnished some lectures to the "Medical Examiner," and a few others were printed in book form.

The truth of the following character of Dr. Chapman, as a lecturer, in the eulogy of his colleague, Dr. Jackson, must be accepted by all who have listened to his public efforts: "He was self-possessed, deliberate, and emphatic. Whenever warmed with his subject, his animation became oratorical. Often the tedium of dry matter would be enlivened by some stroke of wit, or happy pun, an anecdote, or quotation.[1] He was furnished with stores of facts and cases, drawn from his own large experience and observation, illustrating principles, diseases, or treatment under discussion. His bearing was dignified, man-

inflammation of the viscera. In 1789 it was taught by Dr. Francis Riollay, in his "Critical Introduction to the Study of Fevers." Dr. Edward Miller, who in 1807 was elected the Professor of Practice in the University of New York, embraced the doctrine of the sympathetic nature of febrile disease. It forms a prominent peculiarity of his works, which were published in 1814, and has been referred to by Broussais with commendation. See Medical Works of Edward Miller, M.D., and North American Medical and Surgical Journal, vol. v. p. 128.

[1] The readiness of Dr. Chapman in repartee may be illustrated by the following, in connection with the election of a colleague: When Dr. Dorsey was chosen to succeed Dr. Wistar, he was much gratified and elated at the prospect presented him of distinction in the Chair of Anatomy. Expressing himself enthusiastically with reference to his hope of acquiring reputation in that branch, Dr. Chapman remarked that this had already been accomplished, as a muscle had been named after him, the "*Latissimus Dorsi.*"

ners easy, and gestures graceful. He had a thorough command over the attention of his class, with whom he always possessed unbounded popularity. His voice had a peculiar intonation, depending upon some defect in the conformation of the palate, and rendered the articulation of some words an effort. The first time he was heard the ear experienced some difficulty in distinguishing his words. This was of short duration; for one accustomed to the tone, his enunciation was remarkable for its distinctness. Students would often take notes of his lectures nearly verbatim."

Dr. Chapman died July 1st, 1853, and was buried on the 4th, the birth day of American Independence.

The resignation of the Professorship of Practice by Dr. Chapman, in 1850, was followed in May by the transfer to it of Dr. Wood. His election to the Chair of Materia Medica, in 1835, had been productive of new interest in that branch, in consequence of its being made, as it should be, a demonstrative one in each science pertaining to it.[1] In his hands the Chair of Practice became as eminently demonstrative; he richly endowed it with the materials for teaching, and into every department of this varied subject introduced appropriate illustrations in the form of drawings of pathological lesions of the organs, casts and models of disease, apparatus, and an extensive range of pathological preparations.

In June, 1850, the vacant Professorship of Materia Medica and Pharmacy was filled by the appointment of Dr. Joseph Carson.

[1] In addition to the creation of an admirable cabinet of drawings and specimens illustrative of the Materia Medica, Dr. Wood erected a spacious greenhouse, in connection with a garden, for the preservation and collection of medicinal plants. The lectures were thus rendered more interesting from the exhibition of living plants.

The works of Dr. Wood are, the "United States Dispensatory," in conjunction with Dr. Franklin Bache; "A Treatise on the Practice of Medicine;" "A Treatise on Therapeutics and Pharmacology," and a volume of Essays.

## CHAPTER XV.

Death of Dr. James B. Rogers—Sketch of his life—Election of Dr. Robert E. Rogers to the Chair of Chemistry—Death of Dr. Horner—Sketch of his life—Election of Dr. Leidy to the Chair of Anatomy—Resignation of Dr. Gibson—Sketch of his Life—Election of Dr. Henry H. Smith to the Professorship of Surgery—Resignation of Dr. Wood—Election of Dr. Pepper to the Chair of Practice—Resignation of Dr. Jackson and of Dr. Hodge—Election of Dr. F. G. Smith to the Chair of Institutes, and of Dr. Penrose to that of Obstetrics—Resignation of Dr. Pepper and his decease—Sketch of his life—Election of Dr. A. Stillé to Chair of Practice—Supplementary Course of Lectures.

DURING the summer of 1852 the University sustained the loss by death of Dr. Rogers.

James B. Rogers was born in 1803, in the city of Philadelphia; but as his father, Dr. Patrick Kerr Rogers, had been appointed to succeed Dr. Hare as Professor of Chemistry and Natural Philosophy in William and Mary College, Virginia, he received his collegiate education in that institution. He studied medicine in Baltimore, and graduated, in 1822, at the University of Maryland, at the time the reputation of that school was sustained by the names of Potter, Davidge, Baker, and De Butts. He wrote a thesis upon Epilepsy.

After graduation, Dr. Rogers commenced the practice of medicine in Harford County, Maryland, but he soon abandoned the occupation of a country practitioner, and became the superintendent of the chemical works of Messrs. Tyson & Ellicott, in Baltimore. While engaged in this business he accepted the Chair of Chemistry in the Washington Medical College, of that city, and at the same time lectured in the Mechanics' Institute. In 1835 he accepted the position of Professor of Chemistry in the Medical Department of the Cincinnati College, where he was associated with Drs. Drake, Gross, Parker, Cobb, and Harrison. During the four years of labor in that field, he devoted the summer season to the assistance of his brother, Professor

William B. Rogers, in the geological survey of the State of Virginia. He had at this time the honor of being appointed by the Government melter and refiner of the Mint at New Orleans, a post which he, however, declined.

In 1840 Dr. Rogers settled himself in his native city, and was engaged with his brother, Henry D. Rogers, upon the geological survey of the State of Pennsylvania. The following year he succeeded Professor John K. Mitchell in the Medical Institute of Philadelphia. This institution was a summer school for teaching the branches of medicine, and having been founded by Dr. Chapman was closely associated with the University. When Dr. Hare resigned the Professorship of Chemistry, Dr. Rogers became an applicant for this important position. The canvass was a spirited one; the candidates were numerous and prominent; Rogers had secured to himself the earnest wishes in his behalf and the partialities of the profession of Philadelphia, who best knew the qualifications desirable for a medical teacher, and he became the successor of the same individual to whom his father had succeeded twenty-eight years previously, at William and Mary College. From this sole incident how gratifying a result!

Dr. Rogers was a popular teacher; the full store-house of his mind was drawn upon to instruct his pupils, and no pains or labor did he spare to make easy to their comprehension the important truths he taught. In one portion of his course he was especially interesting; this was organic chemistry. Of late years it has become a prominent department of medical science, and, from the success with which it has been cultivated, will become ultimately so interwoven with medicine as to require a large share of attention from medical students. Physiology and pathology are not the only branches to which organic chemistry is essential; therapeutics is gradually becoming amenable to its disclosures. The development of the mode of action of medicines to which organic chemistry has led has dissipated much uncertainty, and explained many phenomena which, although seen, were not understood. By demonstrating the importance of researches upon the subject, and creating an interest in them, Dr. Rogers bestowed important service, and it was apparent that, in its

reaction upon other branches, his mode of teaching materially aided the exertions of his associates. His career was of short duration; after his fourth course of lectures it was closed, with the regrets of all who had been connected with him.[1]

He was succeeded by his brother, Dr. Robert E. Rogers, August, 1852.

By the decease of Dr. Horner, in the spring of 1853, the Chair of Anatomy became vacant.

Dr. William Edmonds Horner was a native of Virginia, and was educated first at the academy of Mr. Charles O'Neill, at Warrenton, and afterwards at Dumfries. Upon the completion of his academic studies, in 1809, he commenced to study medicine under the direction of Dr. John Spence, a Scotch physician, educated at Edinburgh. He continued the pupil of Dr. Spence until 1812, and during this period attended two sessions of the University of Pennsylvania. Anatomy was the branch that more particularly interested him, and for which he manifested the most decided partiality.

In July, 1813, while an under-graduate, he entered the United States army as a surgeon's-mate, and performed his first military duty upon the northern frontier. In this suborbinate capacity he continued to serve until the conclusion of peace with Great Britain, in 1815, when he resigned. Of his adventures during this campaign he kept an interesting record, and published a series of papers, detailing his observations and experience, in the Medical Examiner of Philadelphia, as late as 1852, the year before his death. During the winter of 1813–14, having obtained a furlough, he attended the lectures in the University preparatory to his graduation, which took place in April, 1814. The thesis written by him was on "*Gunshot Wounds.*"

Upon resigning from the Army in 1815, after a brief sojourn in the village of Warrenton, his native place, Dr. Horner settled in Philadelphia; and here located, as we are informed by his biographer, "his enthusiasm for anatomy, his earnest appli-

[1] Memoir of the Life and Character of James B. Rogers, M. D., Professor of Chemistry in the University of Pennsylvania, by Joseph Carson, M. D., Professor of Materia Medica and Pharmacy; delivered at the request of the Faculty, on October 11th, 1852. Published by the Class.

cation to dissection, his quiet demeanor, his steadiness of character, the neatness and elegance of his preparations, had attracted the notice of Prof. Wistar, and gained his friendship, confidence, and esteem."[1] In the spring of 1816 an arrangement was made with Dr. Wistar, by which Dr. Horner became his assistant in the anatomical course, preparing the subject for demonstration. By this association "the demonstrations of the anatomical course were fuller and more complete than they had been previously, and the Anatomical Museum was rapidly increased by numerous specimens and preparations, particularly of fine injections, as well as important pathological illustrations. He worked most assiduously, for it was a work of love."

Upon the death of Dr. Wistar in 1818, he engaged with Dr. Dorsey as his assistant, and when that Professor was stricken down, at the very opening of his course, the engagement was renewed with Dr. Physick, who undertook the labor of delivering the anatomical lectures in addition to his own on Surgery. "The course of 1818–19 was completed in a manner highly satisfactory to Dr. Physick and the class. The assiduity and zeal of Dr. Horner, and the excellence of his demonstrations, by lightening the labor of the course, and facilitating its progress, contributed in no small degree to the result."[2] In 1820, Dr. Horner was elected, as has been stated, Adjunct Professor of Anatomy, and upon the resignation of Dr. Physick, in 1831, became the Professor.

"As a lecturer, Dr. Horner was not fluent or copious in language, nor had any pretensions to elocution. His plan, to a certain extent, was novel. He composed a text-book, his 'Special Anatomy,' which was a complete but concise treatise on Anatomy. It was written in strict reference to the course of study in the University of Pennsylvania, and was kept in as compendious a state as possible, so that there should be no unnecessary loss of time in reading it. This book was, in fact,

[1] A Discourse commemorative of the late William E. Horner, M. D., Professor of Anatomy, delivered before the Faculty and Students of the University of Pennsylvania, October 10, 1853, by Samuel Jackson, M.D., Professor of the Institutes of Medicine.

[2] Ibid.

his lectures. In the lecture-room he confined himself chiefly to the demonstrations of the text of his work, by dissections, preparations, drawings, and models."[1] Dr. Jackson further remarks, with respect to this plan: "On the value of the method there will be different opinions, but it is certain that he made good anatomists. I have frequently heard students declare, that plain, simple, and unadorned as were the lectures of Dr. Horner, that they had learned anatomy better from him than from any others they had heard lecture on that branch."

"The Anatomical Museum of the University, founded, as has been narrated, by Dr. Wistar, is an evidence of the great anatomical skill and untiring application of Dr. Horner. A very large portion of it, upwards of two-thirds at the time of his death, and containing most of its finest preparations, rivalling those of the best anatomical museums of Europe, was the result of his labors. Dr. Horner, from time to time, presented the preparations he had made to the University, which was acknowledged by the Board of Trustees, but on his death he bequeathed an extensive collection, together will all his instruments and apparatus connected with dissections, to the Medical Department." The Trustees have, in consequence of this liberal bequest, bestowed on the collection thus constituted, the name of the "Wistar and Horner Museum."

Dr. Horner is entitled to credit as an original observer. He determined the existence of a special muscle, situated on the posterior surface of the lachrymal duct and sac, which solved the difficulty of explanation as to the mode by which the tears were conveyed into the nose. He named the muscle *tensor tarsi*. Its existence has been verified by anatomists in this country and in Europe, where it has been called "Musculus Horneri."

He also first detected the fact that in cholera the whole of the epithelium was stripped from the small intestines, and hence the turbid rice-water dejections in that disease. This he did by making a minute injection of the mucous membrane, and then examining it by the microscope under water. The paper announcing this discovery was published in the "Ameri-

[1] Dr. Jackson's Discourse, &c., p. 35.

can Journal of the Medical Sciences" in 1835. Two years subsequently the same was published in the "Presse Médicale" of Paris, but without allusion to the American anatomist.

In 1852 Dr. Horner resigned the Deanship of the Medical Department, which is worthy of notice from the fact that he had held that important executive office for thirty years, and, in addition to his professorial labors, faithfully fulfilled its requirements. Prior to the assumption of the duties of this office by Dr. Horner, they were performed in rotation by the Professors. With him it became a permanent position, and has thus continued with advantage to the interests of the Medical Department. Dr. Horner twice visited Europe, first in the early part of his career, and again in 1848, when he journeyed for the sake of recuperation from his labors; but his health from this period rapidly declined. He died on the 13th of March, 1853, of extensive disease of the heart.

To the vacant Professorship Dr. Joseph Leidy was elected in May, 1853.

In 1855, Dr. Gibson resigned his Professorship of Surgery. This Chair he had held for thirty-six years. He was appointed Emeritus Professor of Surgery by the Trustees.

Dr. William Gibson was born in Baltimore, Maryland, March 14, 1788, and received his early education in that city, and at St. John's College, Annapolis. He subsequently went to Princeton College, and remained during the session of 1803–4, leaving the Institution before the time that his class graduated. He commenced the study of medicine with Dr. John Owen, of Baltimore, and in 1806 attended a course of lectures in the University of Pennsylvania. He himself tells us that upon his arrival in Philadelphia he heard the first public lecture he ever listened to. "It was from my distinguished predecessor, the late Dr. Physick. Struck with the peculiar appearance of that extraordinary man, and with the precepts he poured forth, my attention was riveted to every action he displayed, and every word that fell from his lips."[1]

[1] Lecture Introductory to the Course on the Principles and Practice of Surgery in the University of Pennsylvania. Delivered Nov. 1, 1841, by William Gibson, M. D.

At the close of the lectures he sailed for Europe, and first repaired to Edinburgh, where he spent the summer in witnessing the private practice and operations of the celebrated John Bell, then in the zenith of his fame—in attending botanical and natural history lectures, and in devoting particular attention to hospital practice.[1]

He graduated at the University of Edinburgh in 1809, having written a thesis, entitled, "De Forma Ossium Gentillium." The materials for this inaugural Latin dissertation were obtained from the museum of Monro. It was descriptive of the different forms of the bones pertaining to the races of mankind, and has been quoted by Pritchard and other writers in connection with their ethnological researches. The science of ethnology was at that time almost in its infancy.

On a journey from Edinburgh to London, he formed an acquaintance with a brother of Sir John Moore, commander of the British army in Spain, who was killed at the battle of Corunna, and received from this gentleman such testimonials as enabled him to procure the means of witnessing, "in an unofficial capacity," after the arrival of the wounded in England, the important cases of gunshot wounds, and other similar injuries, which occurred at that battle. It is probable that Dr. Gibson was thus first brought into close association with Sir Charles Bell, who was at the time a practitioner of surgery in London, and who had been detailed to assist in the care of the wounded soldiers. He entered, as a private pupil, the family of Sir Charles Bell, and with his taste for artistic delineations, had ample opportunities for improvement under the direction of so consummate a teacher.[2] In 1809 there was a galaxy of distinguished medical men, at the height of their reputation, in London, of whom Dr. Gibson has mentioned Mr. Abernethy and Sir Astley Cooper as conducing to his improvement by their interesting lectures.[3]

[1] Ibid.

[2] See Life of Sir Charles Bell, in Chambers' Dictionary of the Lives of Celebrated Scotchmen.

The system of "Operative Surgery" of Sir Charles Bell was published in 1807. The results of his experience in gunshot wounds was published as an appendix.

[3] Introduct. Lect., cit.

After his return home in 1810, after three years' absence, Dr. Gibson entered upon the practice of his profession in Baltimore, and two years afterwards was appointed to the Chair of Surgery in the University of Maryland. This Institution had recently been established, and in it he was associated with Drs. Davidge, Potter, Baker, De Butts, and Hall. In 1814 he served as a medical officer in the militia of Maryland, at the time of the attack of the British on Baltimore. Upon the death of Dr. Dorsey, when Dr. Physick was transferred to the Chair of Anatomy in the University of Pennsylvania, Dr. Gibson was elected to fill the vacant Chair of Surgery. The election took place in September, 1819.

It would be no small praise to state that Dr. Gibson fully sustained the reputation he brought with him from the University of Maryland, in the new position to which he had been called as the successor of Dr. Physick, the founder and illustrator of the Chair of Surgery in the University of Pennsylvania. As a lecturer he was clear and emphatic; his voice was distinct and melodious; his language was well chosen, and his style of enunciation was attractive. His demonstrations of surgical anatomy were readily comprehended by the student; some of them especially, as those in connection with the neck, with hernia, and with lithotomy, could not be surpassed in lucid exposition. For purposes of demonstration, Dr. Gibson had himself prepared, and procured by purchase, an ample collection of morbid structures, diseased and fractured bones, models and casts, as well as pictures of large size, illustrative of disease, or of the anatomical parts of the body involved in operations.[1] To these were added the approved mechanical appliances of the day. In thus teaching he set the example that has been followed extensively by other surgeons.

As an operator Dr. Gibson was undoubtedly dexterous; of his operations and cases, a number were from time to time communicated to the Journals. In the treatment of fracture of the thigh, he placed before the notice of practitioners of this country a modification of the apparatus known as Hage-

[1] Some of these illustrations were painted by himself, and others by Mr. Sully and other artists.

dorn's; and published a case that had been treated by it in the "Journal of Medical and Physical Sciences."[1] A remarkable circumstance in the surgical practice of Dr. Gibson was the performance of the operation of Cæsarean section twice successfully on the same individual. The details of the two operations have been published separately by Dr. Joseph G. Nancrede and Dr. George Fox, in the "American Journal of the Medical Sciences."[2]

Dr. Gibson published, in 1824, his Institutes and Practice of Surgery, being "Outlines of a Course of Lectures." This work was intended as a guide to the students attending his lectures, and is marked for its accuracy of style and language. It passed through six editions, having been amended and improved; the last edition of 1841 being so enlarged as to constitute a respectable treatise on Surgery. He published, in 1836, a paper entitled, "A Sketch of Lithotripsy, with Cases;"[3] and in 1841 was published his "Rambles in Europe in 1839, with Sketches of Prominent Surgeons and Physicians, Medical Schools, Hospitals, Literary Personages, Scenery, &c." The sketches it contains are graphic and spirited. In 1847 Dr. Gibson again visited Europe, and for several successive years delivered occasionally to the class a lecture devoted especially to his observations and inquiries.

He died at Savannah, Georgia, on the 2d of March, 1868, aged eighty years.

Dr. Henry H. Smith was elected to the Professorship of Surgery, May, 1855.

In 1860 Dr. Wood resigned the Professorship of the Theory and Practice of Medicine, and was appointed Emeritus Professor; he was succeeded by Dr. William Pepper. In 1863 Dr. Wood was chosen a Trustee of the University.

[1] No. VI., page 231.

[2] Observations on the Cæsarean Operation, accompanied by the Relation of a Case in which both Mother and Child were preserved. By Joseph G. Nancrede, M. D.—*Amer. Journ. of the Medical Sciences*, Aug. 1835, vol. xvi.

Account of a Case in which the Cæsarean Section, performed by Prof. Gibson, was a second time successful in saving both Mother and Child. By George Fox, M. D.—*Amer. Journ. of the Medical Sciences*, May, 1838, vol. xxii.

[3] American Journal of the Medical Sciences, Aug. 1836.

The next changes that occurred in the School resulted from the resignation of Drs. Jackson and Hodge in 1863. Dr. Jackson had been thirty-six years in connection with the Medical Department of the University, and to the last day of his public career was an eminently distinguished and useful teacher of his branch.[1] Dr. Hodge had occupied his position twenty-seven years, with the reputation of an admirably practical lecturer.[2] The Chair of Institutes was filled by the election of Dr. Francis Gurney Smith, and that of Obstetrics by the election of Dr. R. A. F. Penrose. The dignity of Emeritus Professors of these several branches was bestowed on Drs. Jackson and Hodge on their resignations being accepted by the Trustees.

In the spring of 1864, Dr. Pepper resigned his professorship in consequence of ill health.

He was a native of Philadelphia, having been born in 1810. After his collegiate studies at Princeton College, where he graduated with the first honors of his class in 1828, he entered the office of Dr. Thomas T. Hewson, who, in his capacity of private preceptor, was excelled by none of his contemporaries.[3] Dr. Pepper graduated at the University in 1832, the subject of his thesis being Apoplexy. After receiving his medical education, he spent two years in Europe, more especially engaged in studying disease in the great hospitals of Paris. Upon his return to Philadelphia he ardently devoted himself to the practice of his profession; for three years was one of the physicians of the Dispensary, and in 1841 was chosen one of the physicians of the Pennsylvania Hospital. He soon acquired the reputation of a sound medical practitioner.

The strong feature of Dr. Pepper's medical character was the possession of analytical acumen and decided ideas of diagnosis. This he carried into his office of a teacher. "As a didactic lecturer he was clear, concise, and complete. Thirty years of

[1] Dr. Jackson published, in 1832, his "Principles of Medicine." He was a liberal contributor to the Journals.

[2] Dr. Hodge published, in 1860, a work "On Diseases Peculiar to Women, including Displacements of the Uterus," and in 1864, his treatise, entitled, "The Principles and Practice of Obstetrics."

[3] Dr. Hewson, for a number of years, held the position of Professor of Comparative Anatomy in the University. See *ante*.

active practice had made him familiar with disease in its varied forms, and had led him to reject as useless that which was merely speculative in medicine, while it enabled him to speak with authority of all that was valuable in our science. Thoroughly familiar with medical literature, he had also studied disease in the great book of nature, at the bedside in private practice, and in the wards of hospitals. Thus, to him, nearly every disease treated of presented itself in the form of individual cases which had come under his notice, or been under his immediate care. From this great treasury of knowledge he continually drew in illustration of the subject matter of his lecture. Catching at the typical features of the disease, its pathological history and phenomena, its diagnosis, general and differential, were given with such clearness and force, that the student saw before him, as at the bedside, all that was distinctive and important in the case; while the principles of treatment and its results followed with almost mathematical accuracy and precision."

"Dr. Pepper made no effort at oratorical display. The main object of his teaching was apparent—to give a thoroughly practical course, one which, as far as possible, would prepare his pupils for the intelligent treatment of disease. His enunciation was distinct, and his delivery rather a rapid than a slow one. No one could visit his lecture-room without noticing the marked attention of the class, nor be associated with the students without perceiving with what affectionate respect they regarded their preceptor."

"It is a remarkable fact, and in keeping with what has already been noticed, that during the four years of his professorship, a period the most exciting and important in our national history, notwithstanding the cares of a very large practice, and the infirmities of declining health, he was never absent from a lecture, and never failed to meet his class punctually at the time appointed for its delivery."[1]

The career of Dr. Pepper was short in connection with the

[1] We have taken largely, in this notice, from the statements contained in the Biographical Memoir of the late Dr. William Pepper, M. D., by Thomas Kirkbride, M. D., prepared by request of the College of Physicians of Philadelphia, 1866.

University, but was so marked as to give promise of eminence and usefulness. Some papers were contributed by him to the periodical journals; they were few in number, but marked by excellent reflection and the spirit of inquiry, his long experience in the Pennsylvania Hospital having placed ample material at his command. He died October 16, 1864.

Upon the resignation of Dr. Pepper, Dr. Alfred Stillé was elected, June 7, 1864, to the Professorship of the Theory and Practice of Medicine, and Clinical Medicine.

In 1864 it was determined by the Board of Trustees of the University to institute an Accessory Course of Lectures to those delivered during the winter season, and on April 4, 1865, the subjoined report and resolutions were adopted:—

"The Standing Committee on the Medical Department to whom was referred the subject of instituting additional lectureships in connection with that department, and the mode in which the lecturers should be compensated, respectfully report as follows:—

"Whereas, the instruction as at present given in the Medical Department of the University, though as comprehensive as is consistent with self-support, does not embrace all the branches of knowledge specially subservient to Medicine, or closely connected with it; and,

"Whereas experience has shown that systematic instruction in these subordinate branches can be secured only through endowed lectureships, and

"Whereas, finally, in our Institution, holding the rank of a University, the very name of which implies universality of instruction, it is highly desirable that provision should be made for teaching all the sciences an acquaintance with which is in a greater or less degree essential to a complete and thorough medical education; therefore

"Resolved, That a Faculty is hereby instituted in connection with the Medical Department of the University of Pennsylvania, to be denominated the Auxiliary Faculty of Medicine, of which the several Professors shall receive a fixed salary, sufficient to serve as an inducement for competent persons to accept the position, yet insufficient to preclude exertion for its increase through the attendance of pupils.

"The Faculty shall comprise five Professorships, of—1, Zoology and Comparative Anatomy; 2, Botany; 3, Mineralogy and Geology; 4, Hygiene; 5, Medical Jurisprudence, including Toxicology. The occupants of these Chairs shall constitute the Members of the Auxiliary Faculty. It must be understood as essential in the fulfilment of the duties of these Chairs that the three branches of Natural History, forming the subjects of the three Professorships first mentioned, shall be taught mainly in reference to their medical relations, and in other respects only so far as may serve to give a general view of the subject whereby the several facts may be duly connected and arranged.

"The Faculty shall appoint a Dean from among its members, whose duty it shall be to preside over and keep minutes of the meetings, and to perform all the executive functions that may be entrusted to him.

"It shall have power to determine the time of lecturing of the several Professors, to fix the terms of admission to the lectures, which, however, shall be uniform for all, and shall not exceed ten dollars from each pupil for each Professor; to make rules for its own government; to regulate the common expenses; and to do whatever else is incidental to its constitution, every question being decided by a majority of the members present, provided they form a quorum.

"The several courses shall consist of at least thirty-four lectures, to be delivered at hours fixed by the Faculty, three times a week, during the months of April, May, and June, commencing on the first Monday of April, and ending on the last Saturday of June.

"They shall be given with the assent of the Medical Faculty in the Lecture Rooms of the building occupied by that Faculty, and it will be the duty of the Auxiliary Faculty to take care that the apartments appropriated to their use are kept in due order while occupied by them, and properly cleansed at the end of each course; and should this requisition be disregarded, the cost of supplying the deficiency shall be defrayed by a pro rata deduction from the salaries of the Professors.

"At the end of the courses the Faculty shall hold an examination, under such regulations as they may deem best, of the pupils who may have attended at least one full course of all

the lectures and may apply for such examination, in order to decide on the proficiency of the pupils; and should the decision be favorable, a certificate to that effect shall be given to every successful candidate, for which the sum of two dollars and fifty cents may be demanded from each person receiving it.

"The certificate shall be in such form as the Faculty may determine, to be approved by the Trustees; and each certificate to a medical graduate of the University of Pennsylvania, or any other medical school on the ad eundem list, shall, under the sanction of the Board, receive the seal of the University and the signature of the Provost.

"The Professors shall be appointed for one year, after public notice of at least three months, at the regular meeting of the Board in November next, nominations having been made at a preceding meeting, and shall be reappointed annually thereafter during satisfactory service, at the regular meeting of the Board in the same month, so long as the plan for the establishment of the Auxiliary Faculty of Medicine now adopted shall continue in operation."

In accordance with the above resolutions, on November 7th, 1865, the following gentlemen were elected by the Board of Trustees to fill the several Chairs that had been created:—

HARRISON ALLEN, M. D., Professor of Zoology and Comparative Anatomy.

HORATIO C. WOOD, M. D., Professor of Botany.

F. V. HAYDEN, M. D., Professor of Geology and Mineralogy.

HENRY HARTSHORNE, M. D., Professor of Hygiene.

JOHN J. REESE, M. D., Professor of Medical Jurisprudence.

With the addition above stated, the Medical Faculty of the University of Pennsylvania, as constituted January 1, 1869, is as follows:—

GEORGE B. WOOD, M. D., LL.D., Emeritus Professor of Theory and Practice of Medicine.

SAMUEL JACKSON, M. D., Emeritus Professor of Institutes of Medicine.

HUGH L. HODGE, M. D., Emeritus Professor of Obstetrics and the Diseases of Women and Children.

JOSEPH CARSON, M. D., Professor of Materia Medica and Pharmacy.

ROBERT E. ROGERS, M. D., Professor of Chemistry.

JOSEPH LEIDY, M. D., Professor of Anatomy.

HENRY H. SMITH, M. D., Professor of Surgery.

FRANCIS G. SMITH, M. D., Professor of Institutes of Medicine.

R. A. F. PENROSE, M. D., Professor of Obstetrics and the Diseases of Women and Children.

ALFRED STILLÉ, M. D., Professor of Theory and Practice of Medicine.

D. HAYES AGNEW, M. D., Demonstrator of Anatomy, and Assistant Lecturer on Clinical Surgery.

DR. ROBERT E. ROGERS holds the office of Dean.

The first course of lectures by the Auxiliary Faculty was given in the spring of 1866, and was highly successful, there being about one hundred gentlemen in attendance. As a portion of the uniform regular instruction of the Medical School, the accessory course is now in full operation.

# CHAPTER XVI.

## CLINICAL INSTRUCTION.

It has been shown that clinical instruction was inaugurated in the Pennsylvania Hospital in 1766, by Dr. Bond, in connection with the establishment of the medical lectures of the College, At the time of the organization of the Medical Department, five of the physicians of the Hospital were Trustees of the College, and, well aware of the advantages of clinical teaching, they regarded the association of the two institutions as of the highest consequence to the success of the enterprise of establishing systematic medical teaching in the city of Philadelphia. Anterior to 1800, eight of the professors engaged in conducting courses of lectures on the several branches of medicine taught in the College or University had successively been elected physicians or surgeons of the Hospital.[1] The instruction in this institution has been continued under the direction of medical professors, or of the physicians attached to it, to the present time, and has always been regarded as one of the privileges of students visiting Philadelphia.[2]

As far as we have been able to ascertain, the mode of conducting the instruction in the Pennsylvania Hospital in early times was at the bed-side of the patient; the physician, in making his stated rounds of the wards, selecting such cases as he deemed most interesting or instructive, and especially dwelling upon their nature and treatment. For a large class this plan of procedure was attended with its disadvantages; the confusion of a crowded apartment; the possibility of only a

[1] See Appendix, G.

[2] Dr. Caldwell, in his Autobiography, states that "Dr. Rush prescribed and lectured to his pupils in the Pennsylvania Hospital twice every week during the season of the medical school, which extended from the beginning of November to the close of February. This was in 1796–97." p. 264.

limited number of students approaching the patient; the manifest danger of injury to those seriously ill who were the subject of remarks, or in close proximity at the time of their delivery; and the inability on the part of the teacher to discuss and illustrate particular diseases in detail for want of classification, were reasons for the abandonment of this method, and of substituting for it that of presenting the proper subjects of disease before the class in the amphitheatre, which had been arranged for this purpose, and more especially for the peformance of surgical operations in public.

To Dr. Benjamin H. Coates is the credit due of putting this method of demonstrating and of lecturing into operation in the Pennsylvania Hospital. He introduced it about the year 1834, and continued it afterwards during his connection with the institution. Dr. Wood, who succeeded to the winter term, as senior physician, on the resignation of Dr. Coates, in 1841, pursued the same method, in which he was joined by the surgeon, Dr. Randolph. It has been continued ever since, and has been extended during the terms of service, throughout the year, of all the medical attendants.

To another establishment must attention be directed as having conduced to the important purpose of training the younger members of the profession for their duties, and of affording facilities for instruction in clinical medicine. The Philadelphia Almshouse went into operation before the erection of the Pennsylvania Hospital, and the first physicians, of whose appointment to minister to the relief of its inmates we have a record, were Drs. Thomas Bond and Cadwalader Evans.

It is stated by Dr. Agnew, in his lecture on the Medical History of the Almshouse,[1] that we may claim for that Institution the establishment of the first obstetrical clinic. "Students of good character were allowed to attend cases of labor, and the various stages of the process were explained to them by Drs.

[1] Lecture on the Medical History of the Philadelphia Almshouse; delivered at the opening of the Clinical Lectures, October 15, 1862, by Dr. D. Hayes Agnew, M. D. Published by request of the Board of Guardians. To this interesting and full account of that institution we are indebted for much of the information herein presented, where the Almshouse is alluded to.

Bond and Evans, under whose personal directions these instructions were conducted as early as 1770, and, in all probability, much earlier, as may be inferred from the phraseology of the minutes touching this subject.[1]

"In 1772 a proposition was made to the managers to extend the usefulness of the house by the admission of students, and an increase in the number of medical attendants. This proposition included an offer of gratuitous service, the institution being only at the expense of purchasing the medicines required for the sick." In March, 1774, an addition to the medical corps was effected by the election of Dr. Adam Kuhn, Dr. Benjamin Rush, Dr. Samuel Duffield (one of the first graduates of the College), Dr. Gerardus Clarkson, and Dr. Thomas Parke.

It must not be supposed that a uniform course of clinical instruction has been conducted in the Almshouse from the period alluded to. On the contrary, it appears from the records that the instruction was fitful and irregular, depending on a variety of circumstances, and much upon the opinions controlling the management with respect to its expediency, and hence we find that from time to time the admission of students was suspended.

When, after the evacuation of Philadelphia by the British, who had forcibly occupied the buildings of the Almshouse, affairs assumed a more settled condition, the desire for clinical instruction was rekindled. "In November, 1778, the subject was revived by the students present in the city. They presented a formal application to the physicians of the Almshouse for permission to witness the practice of the institution. Drs. Rogers and Leib waited on the Board of Managers in their behalf, and presented the importance of such a measure with much earnestness." The application was at first refused, and then granted, but either from hostility on the part of the direction, or from other causes, it was of little avail.

In 1788, Dr. Samuel P. Griffitts and Dr. Caspar Wistar became physicians to the House, and, in 1789, Dr. William Shippen, Jr., was elected. At this time the proposition for

[1] It is to be understood that this clinic was in a public institution. The private clinic of Dr. Shippen has been referred to in a previous chapter.

facilities of clinical teaching was renewed, but was not received with favor, and, in a short time afterwards, all of the physicians resigned.

In 1795 Dr. Cummings again brought this vexed question to the notice of the managers, but "the proposition was promptly rejected upon the ground of such publicity being calculated to do harm to the sick."

In 1797 Dr. John Church and Thomas C. James were chosen medical officers. These gentlemen were subsequently associated in teaching Midwifery. "In 1803 Drs. James and Church proposed to attend the Lying-in Ward, on condition they should be allowed to have one private pupil present at each case of labor. The application was granted, and much valuable instruction was communicated in this responsible department of medicine." "The same year, on the 23d of March, Dr. Caldwell was allowed to introduce and instruct twenty, and afterwards forty students, during his *stated visits* to the medical wards, on the condition of his becoming responsible for their good deportment."[1]

"In November, 1805, through the efforts of Drs. James and Church, the Managers conceded the privilege to deliver clinical lectures to a class of students twice a week in the 'Green,' or 'Dead House,' during the winter season. Shortly after, Dr. Barton was permitted to give instruction to his class on the days of his regular attendance at the House. Every successive year now removed more and more the prejudices which had so long operated against the admission of medical students. The Managers were seized with an active desire to promote and foster a system which contributed so largely toward laying a solid foundation of medical usefulness."

"Until October 25, 1805, no fee was demanded from those attending the instruction of the Institution, but, at the above date, a ticket was directed to be issued, signed by the Presi-

[1] Dr. Caldwell, in alluding to this in his autobiography, states: "The first course of clinical lectures in the Philadelphia Almshouse was delivered by myself, not long after the commencement of the present century, the precise year not being remembered (1803). I was then a member of the Faculty of that Institution, and continued my lectures annually for several years, until deprived of my appointment in it on political grounds." p. 264.

dent and Secretary of the Board of Guardians, at the price of eight dollars—two purchasing a perpetual privilege. The office pupils of the medical officers were free to attend without charge. In November, 1807, Dr. James was delivering lectures still in the Green Room, and there the physicians continued to give clinical instruction until 1811, when the surgeons connected with the Almshouse asked for more suitable apartments in which operations could be performed, and thus remove from the ward a source of mischief to the other sick. To correct this evil, the Board had the building called the 'Dye and Wash-House,' carried up an additional story, fitted up as a lecture-room, with two adjoining wards capable of holding each twenty or thirty patients; and here were next delivered clinical lectures."[1]

"During 1813 the Managers, anxious to advance the reputation and popularity of the house, were induced to tender to every student taking its ticket the privilege of attending a case of labor; and to give the proposal greater publicity, it was by their authority announced in the public papers. This scheme of indiscriminate admission to the ward of the lying-in department brought out a minority protest."

It appears that, by a rule of the house, a physician or surgeon holding a position of a similar kind in the Pennsylvania Hospital was not eligible to office in it. To this reference was made in the same report, and the wisdom was urged of selecting the "very best talent wherever found, and especially the propriety of seeking as many lecturers from the Medical School as possible." The views thus presented were received with favor, the discriminating rule was rescinded, and a cordial

[1] The Almshouse building was located on the square bounded by Spruce and Pine and Tenth and Eleventh Streets. Across the centre of the lot, from east to west, was the addition made which served for the purposes specified. It made the south side of a quadrilateral; the main building facing on Spruce Street, and on the sides extending back to the new erection. In the centre was a hollow square, consisting of spacious courtyards on the sides, and a small garden between them. To the south of the entire building, as thus arranged, between it and Pine Street, was a vegetable garden. At one time the small garden was used by Dr. Wm. P. C. Barton for botanical purposes. In its centre was a summer-house that had been carried in the Federal Procession.

understanding entered into with the Hospital. On the part of the University, the spirit exhibited by the Board of Guardians was reciprocated, and on Nov. 15, 1815, the following modification of the rules was enacted by the Faculty, with the sanction of the Trustees:—

"Resolved, that so much of the Bye-Laws as requires the students of medicine to attend the Pennsylvania Hospital, during one session at least, be altered by inserting after the word Hospital, the words, 'or the City Almshouse.'"

In 1822 we find three of the Professors of the University in connection with the clinic of the Almshouse, having as their associates some of the most prominent members of the profession, among whom was Dr. Jackson.[1] It appears that upon the reorganization, at this period, of the Board of Physicians and Surgeons of that institution, the system was introduced of delivering the clinical lectures regularly on Wednesdays and Saturdays in the lecture-room. To this the patients could be conveniently taken, either from the adjacent wards, or, when proper, from those at a distance. Systematic instruction in clinical medicine in the institution, indeed, dates from that period.

The importance of the Clinical School of the Almshouse to the interests of medicine, and the appreciation on the part of the students of the practical knowledge afforded by it, may be inferred from the fact that in ten years, between 1815 and 1825, eleven thousand one hundred and sixty dollars, in the form of fees of admission, had been received by the institution.[2]

[1] In 1822 the Board of Physicians and Surgeons consisted of Drs. Chapman, Gibson, Horner, Jackson, Joseph Klapp, J. K. Mitchell, Richard Harlan, J. V. O. Lawrence, and John Rhea Barton. Dr. Lawrence died that year, and was succeeded by Dr. Hugh L. Hodge.

[2] Report of the Clerk of the Almshouse to the Dean of the University—Minutes of the Faculty, May 14, 1823. This would give an average of 139 students annually. In 1830 the number was 185, and in 1834 it was 220. The pupils of both Schools, the University and Jefferson Medical College, were then in attendance. In 1835, Dr. Joseph Pancoast and Dr. Robley Dunglison, were members of the Medical Board of the Almshouse. It is to be recollected that the medical students in the city were divided between the two hospitals.

In 1826 the Faculty applied to the Board of Trustees of the University for authority to employ an assistant to the Professor of Practice in the delivery of his clinical lectures, on the ground that the duties of the Chair were too onerous for a single individual.[1] Whereupon it was resolved, "That the Professor of the Institutes and the Practice of Medicine have permission to employ an assistant in the performance of his duties at the Almshouse, in giving clinical lectures there during the present course, and no longer."[2]

In 1827, Dr. Jackson was chosen the Assistant to the Professor of Practice, Institutes, and Clinical Medicine, and from that time took an active part in conducting the clinics of the winter season, as well as in performing the duties devolving upon him during his own especial term. In 1832, Dr. Chapman resigned his position as Physician of the Almshouse.

The Legislature having passed the necessary law to enable the Board of Guardians of the Poor to erect new buildings for the accommodation of the indigent, this was carried into effect in 1830, and the Hospital Department, the first portion of the pile of buildings, afterwards completed on the west bank of the Schuylkill River, was in sufficient readiness upon the first visitation of the cholera, in 1832, to receive patients. The locality selected was at the time outside of the limits of the city, and in the district which was called Blockley; hence the title that was soon acquired of Blockley Hospital. Since the act of consolidation, as it has been technically called, by which the districts were united under the city government, the name of Philadelphia Hospital has been used to designate the establishment.

After the removal west of the Schuylkill, the numbers of the students attending the clinical lectures fell off. In 1834 measures were taken to secure their attendance and render it easy. Negotiations were entered into between the University and the Board of Guardians, and at a meeting of the Medical Faculty, held October 29th, it was

[1] The duties performed by Dr. Chapman were daily lectures in the University upon the Practice of Medicine, and two lectures additional a week in the Almshouse. He consequently lectured twice in succession on two days of the week.

[2] Minutes, Dec. 5, 1826.

"Resolved, That if the Guardians of the Poor will make arrangements to transport twice a week, for the four months directly ensuing, two hundred and twenty students to and from the Alms House to a convenient site in the city; should the number of students be less than that number, the Medical Faculty will pay to the Board the sum of three dollars upon each case of the deficiency."

The proposition was accepted by the Board, and the students were conveyed in omnibuses.

In 1838, Dr. William Gerhard was appointed an Assistant to Dr. Jackson. The services of Dr. Gerhard were so highly appreciated by the class attending the clinic of the Blockley Hospital in the winter of 1840 as to lead to a series of resolutions expressive of approbation.

In 1840 Dr. Gibson withdrew from the service of the Hospital, and was followed, in 1845, by Drs. Jackson and Horner.[1]

In 1841, the system of Dispensary Clinics was adopted by the University. The first that was instituted under its auspices was conducted by Dr. Gerhard and Dr. William P. Johnston, in the building of the Medical Institute, in Locust Street above Eleventh. It was there carried on until the commencement of the course of 1843, when it was transferred to the University building, under the immediate superintendence of the professors, with the assistance of those gentlemen. From that time to the present this mode of practical instruction has constituted a part of the regular course of medical teaching conducted by the University.[2]

[1] For an account of the changes which subsequently occurred, and the policy pursued, we must refer to the pages of Dr. Agnew's Lecture; it is sufficient here to remark, that, after a trial of various schemes for the management of the institution, with the appointment of a chief resident physician, and, in 1855, of special lecturers on medicine and surgery, there was a return, in 1859, to the original plan of a Board of Physicians and Surgeons, upon whom devolved the care of the sick as well as the instruction of pupils. Attendance has been made free to all medical students, who, aided by the facilities of attendance afforded by the street cars, now freely avail themselves of the excellent clinical teaching conducted in the establishment. See Appendix G. for list of the Professors who have served in the Almshouse.

[2] This method of clinical instruction was first adopted on the organization of the Jefferson Medical College, in 1824, at its building in Prune Street. The history of that School has been written by Dr. J. F. Gayley.

In connection with the clinical service two rooms within the building were appropriated for the accommodation of patients requiring operations, who could not be immediately removed. By this arrangement the same attention, nursing, and care can be bestowed upon the subjects of capital operations as in a hospital.

With a view of completing the plan for clinical instruction, so as to give to it the greatest efficiency compatible with the progress of medical education, on October 4, 1845, it was

"Resolved, by the Faculty that a surgeon connected with the Pennsylvania Hospital, and whose duties there were performed during the session of the University, be requested to officiate as Clinical Lecturer on Surgery."

This led to the creation of the Chair of Clinical Surgery in the University by the Trustees, and the appointment by the Board, in 1847, of Dr. Jacob Randolph to perform the duties of the office in the Hospital.[1]

In 1848 Dr. Randolph died,[2] and Dr. George W. Norris, who had delivered the course of clinical lectures under the auspices of the University during Dr. Randolph's illness, was elected his successor in the professorship. Dr. Norris continued to perform his duties as Clinical Professor until 1857, when, upon being elected a Trustee of the University, he resigned.

The instruction in the Pennsylvania Hospital having now been fully organized, with regular lectures delivered throughout the year by the physicians and surgeons in attendance, and a similar system introduced into the Philadelphia Hospital, the office of Clinical Professor to the University has been abolished. Students have now the advantages afforded in the way of instruction by both these Institutions, which have occupied so important a position in connection with medical teaching; and also those afforded by the clinics in the University building.

The establishment of numerous hospitals of late years, both of a general character or devoted to special diseases, has greatly

[1] Dr. Randolph had previously accepted the invitation of the Faculty to deliver the lectures on Clinical Surgery.

[2] An interesting Memoir of Dr. Jacob Randolph was read before the College of Physicians of Philadelphia by Dr. George W. Norris.

increased the sources of medical information, and opened a more extensive field for the cultivation of medical science to the young and zealous aspirants whose talents and energies are each year called into requisition to minister to the maladies of the inmates of these charitable institutions.

The hospitals of Philadelphia, besides the two large ones mentioned, are the Wills Hospital, for diseases of the eye and ear; St. Joseph's Hospital, the Episcopal Hospital, the Preston Retreat for Lying-in Women, the Children's Hospital, Howard Hospital, and some others lately organized.

## CHAPTER XVII.

University Buildings and accommodations for the delivery of the medical lectures.

THE inquiry will naturally arise with respect to the nature of the accommodations possessed by the Medical Faculty, from the earliest period, for conducting their courses of instruction; and, in connection with this inquiry, the precise locality of such accommodations is not without interest.

When Dr. Shippen commenced his labors as an instructor in Anatomy, he occupied apartments in the rear of his father's residence in Fourth Street above Market, which had been prepared for this especial purpose. There the lectures on Anatomy, Surgery, and Midwifery, were delivered even some years after he was installed Professor of the College. Access to these apartments was by an alley-way from Market Street above Fourth. In speaking of these arrangements, Dr. Wistar remarks: "He had apartments of his own construction every way adequate to the accommodation of his class, with proper arrangements also for teaching practical anatomy."

The probability is that the other lectures were delivered in the old Academy Building in Fourth Street, near to Arch. This building had been erected for religious purposes at the time of Whitfield's popularity in America, to accommodate those who were attracted by his preaching, and for *free* religious services. In 1749, upon the establishment of the Academy, it was conveyed to the Trustees, upon the assumption of a debt that existed, and with the condition that it should be used by such ministers as were approved by the Trustees. An attraction which it possessed was a hall, which, at the time, was regarded as spacious, and adapted for public gatherings. From the Minutes of the Board of Trustees we are informed that subsequent improvements and alterations were

made with the view to the accommodation of the several schools connected with the Institution.

The first building specially erected for the use of the Medical Professors was situated in Fifth Street below Library—the edifice to the south of the Philadelphia Dispensary. It is figured in Birch's Views of Philadelphia, published about 1800, as "Surgeons' Hall." The exact time that this building was erected seems to have escaped recollection or record. In reporting upon a claim to title involving some portion of the lot adjacent, which had been ceded in 1788, the Committee of the Trustees, to whom the question was years afterwards referred, remark that "at the date of this deed, and long before, as the Committee have understood, the building called the Anatomical Hall, was erected, &c."[1] As the University superseded the College in 1779, this building must have been erected for the accommodation of a part of the Medical Faculty attached to the former. In the early advertisements of the Lectures, there are no references to the location of their delivery, nor have we any record by which we can be guided in designating exactly where each course was given.

Upon the resumption of its charter and privileges by the College in 1789, the University was compelled to provide new accommodations, and it leased a portion of the building then recently erected by the Philosophical Society on Fifth Street, for the term of five years. Upon the union of the schools in 1791, this lease was not resumed. It is evident, from perusing the documents referring to the subject, that the several schools pertaining to the University were cramped for want of room in which to carry on their operations. In an address to the Legislature, on Jan. 3, 1792, the following language is used by the Trustees: "We are desirous that additional buildings may be erected, and that our Library and Philosophical Apparatus should be enlarged, but we find that the revenues at present

[1] Upon a close examination of the Minutes of the Board of Trustees, we have been unable to find any reference to the erection of Surgeons' Hall. The Committee referred to, Messrs. Binney and Gibson, accurate lawyers, had they been more successful, would not have used the indefinite language quoted in giving an opinion upon a title. Surgeons' Hall was subsequently the Board of Health office.

belonging to the Institution will not be sufficient to accomplish these purposes, and the benevolent and liberal views of the Legislature without further aid."

In July, 1800, the Trustees became possessed, by purchase, of the edifice that had been built by the State of Pennsylvania, on Ninth Street, between Chestnut and Market, for the accommodation of the President of the United States.[1] The acceptance of this building on the part of the General Government was declined by Mr. Adams, and as the government was soon afterwards removed to Washington City, the edifice was sold at auction, and purchased, with adjacent property, by the Trustees of the University. The cost of the edifice itself was twenty-four thousand dollars, and the expense was met by the sale of the south end of the old Academy in Fourth Street.

In 1800, at the time of opening the session, the Medical Faculty applied for accommodation in the building on Ninth Street, and in April, 1802, the Committee on the "New Building" reported that "they have the pleasure of announcing to the Board that all the schools, except the Charity School, were removed to the new University on Ninth Street. They have fitted up the west Bow Room in the second story for the Medical Schools, and if the Chemical Professor should desire a room for his chemical apparatus, he can be accommodated in the lower story."

That this arrangement was not satisfactory is learned from the Minutes of the Medical Faculty, March 17, 1804.

"To the Trustees of the University of Pennsylvania, the petition of the Medical Professors in said University respectfully showeth: That from the late increase of medical students, amounting last winter to one hundred and fifty, the rooms in

[1] The following is from the "Pa. Gazette," May 16, 1792: "On Friday last the Governor of this State laid the Corner Stone of the President's House in Ninth Street. The inscription on the stone is—

This Corner Stone was laid
On the 10th day of May, 1792,
The State of Pennsylvania out of debt.
Thomas Mifflin, Governor."

The edifice was completed in 1797. It was commenced at the time Washington was President, and is said to have cost one hundred thousand dollars.

which Anatomy and Chemistry are taught, in Fifth Street, are too small to accommodate them:[1]

"That the room in the University on Ninth Street, in which the other branches of Medicine are taught, is so remote from the Anatomical and Chemical Rooms as to make it disagreeable and inconvenient for the students of medicine to pass successively from one to the other in the inclement season of the year in which the lectures are usually delivered.[2]

"Under these circumstances your petitioners request the appropriation of four rooms on the first floor of the north end of the building in Fourth Street, formerly the seat of the University, exclusively for their use.

"The advantages of this situation for the delivery of their lectures they conceive to be as follows:—

"First. It will be the centre of population of the city.

"Secondly. It is well sequestered from the streets, and unconnected with dwelling-houses, and thus defended from accident, injuries, and inspection.

"Thirdly. It will readily admit of additions, when they shall become necessary, from the extent of the lot westward on which the building stands.

"Fourthly. It will enable the students to pass with ease from one teacher to another, without exposing themselves in a long walk in bad weather; and, lastly, it will establish a relationship and uniformity between the accommodations of the medical sciences and those respectable and decent apartments in which other branches of science are taught in the University.

"The building now occupied by the Professors of Anatomy and Chemistry, your petitioners conceive, may be rented for a sum nearly equal to that which arises from the rent of the rooms which are the objects of the petition."

This petition appears not to have met a favorable reception on the part of the Board of Trustees, and in 1806 a new proposition was submitted to the Board, by which the medical professors held themselves responsible for the interest of a sum to

[1] In allusions made to this building, it is sometimes called the Laboratory, and sometimes the Anatomical Hall.

[2] Ninth Street, at the time, was upon the extreme verge of the city.

be expended in their behalf in the erection of apartments suitable for the medical lectures. This proposition was acceded to, and an addition was made to the building in Ninth Street, in which the lectures were delivered, while the room which had been occupied by Dr. Rush and Dr. Barton, on the second floor of the main building, was appropriated for the Museum.

The new apartments were occupied in 1807, and here Dr. Shippen took part in the course which was the last in which he was engaged. Dr. Wistar thus refers to Dr. Shippen in this connection: "Last winter (1807) he delivered the introductory lecture, though very infirm, and unlike what he had formerly been. Yet he was much roused by the appearance of the class in the *new theatre*, and feelingly described his emotions upon comparing these with his original set of students forty years before."

In 1817, the Medical Hall was further enlarged, and on Nov. 4th, 1828, it was "resolved that the present Medical Hall is, in the opinion of the Committee (to whom the subject had been referred), inconvenient in several respects, and as it is incapable of being so altered as to afford accommodations suitable to the flourishing condition of the school, it is deemed advisable to erect a new building." In 1829, the Trustees determined to remove all the buildings, and to substitute for them upon the same lot the two buildings now constituting the Medical Hall and that for the other departments of the University.

The Medical Hall was planned and built under the supervision of the Faculty. It contains three large lecture rooms, a spacious museum, rooms for anatomical purposes, and small apartments for the use of the professors and for the business of the institution. The corner-stone of this building was laid on the occasion of the commencement of 1829. The following is the account of the ceremonies at the time published:—

"At a Medical Commencement, held March 21st, 1829, in the saloon of the Masonic Hall, Chestnut Street, the Degree of Doctor of Medicine was conferred on one hundred and seven gentlemen, who had passed the examination by the Medical Faculty. On the same occasion the corner-stone of the new Medical Hall was laid, and an inscription to the following effect, along with the list of graduates, was deposited; a suita-

ble address being delivered to the graduates and the public in the Masonic Hall by the Rev. William H. Delancey, D.D., Provost."[1]

---

[1] INSCRIPTION.

UNIVERSITY OF PENNSYLVANIA.

*Trustees.*

The GOVERNOR OF THE STATE (*ex officio*), President of the Board.

Rt. Rev. WILLIAM WHITE, D. D.,
EDWARD BURD,
WILLIAM RAWLE, LL.D.,
BENJAMIN R. MORGAN,
HORACE BINNEY, LL. D.,
WILLIAM MEREDITH,
BENJAMIN CHEW,
Rev. JAMES WILSON, D. D.,
ROBERT WALN,
JOHN SERGEANT, LL. D.,
THOMAS CADWALADER,
CHARLES CHAUNCEY,
NICHOLAS BIDDLE,
ZACCHEUS COLLINS,
P. S. DUPONCEAU, LL. D.,
JOSEPH HOPKINSON, LL. D.,
JAMES GIBSON,
JOSEPH R. INGERSOLL,
Rev. PHILIP F. MAYER, D. D.,
PHILIP H. NICKLIN,
Rt. Rev. HENRY U. ONDERDONK, D.D.,
JOHN C. LOWBER,
ROBERT WALSH, JR., LL. D.,
Rev. THOMAS H. SKINNER, D. D.
JOSEPH REED, *Secretary.*

*Professors of the Collegiate Department.*

The Rev. WILLIAM H. DELANCEY, D. D., Provost, Professor of Moral Philosophy.

ROBERT ADRIAN, LL. D., Vice Provost, and Professor of Mathematics.

The Rev. SAMUEL B. WILEY, D. D., Professor of Languages.

ALEXANDER DALLAS BACHE, A. M., Professor of Natural Philosophy and Chemistry.

The Rev. EDWARD RUTLEDGE, A. M., Assistant Professor of Moral Philosophy.

*Professors in the Medical Department.*

PHILIP SYNG PHYSICK, M. D., Professor of Anatomy.

NATHANIEL CHAPMAN, M. D., Professor of the Institutes and Practice of Physic and Clinical Medicine.

WILLIAM GIBSON, M. D., Professor of Surgery.

JOHN REDMAN COXE, M. D., Professor of Materia Medica and Pharmacy.

ROBERT HARE, M. D., Professor of Chemistry.

THOMAS C. JAMES, M. D., Professor of Midwifery.

WILLIAM E. HORNER, M. D., Adjunct Professor of Anatomy.

WILLIAM P. DEWEES, M. D., Adjunct Professor of Midwifery.

SAMUEL JACKSON, M. D., Assistant to the Professor of the Institutes and Practice of Medicine and Clinical Medicine.

WILLIAM E. HORNER, *Dean.*

Andrew Jackson, President of the United States.
John C. Calhoun, Vice-President.
John Marshall, Chief Justice of the United States.

The medical lectures of the session 1829–30 were delivered in the new building, and the first class of medical graduates issued from its walls in 1830.

The history of the Medical Department of the University of Pennsylvania is here brought to a close. The author has endeavored to present a clear exposition of the circumstances connected with the rise and progress of this School of Medicine, and at the same time to give a succinct account of the lives and labors of the illustrious members of the Profession whose reputation is inseparably connected with it.

In this narrative, omission has designedly been made of any extended exposition of the character and services of the distinguished men still living, who have so greatly added to the strength and contributed to the prosperity of the school; who have retired from the scene of their usefulness, and who now enjoy the reward of consciousness that their talents and acquirements have been employed honorably and effectively in the cause of science and humanity. They now continue in connection with the University in the honorary position of emeritus professors. Their distinctive qualities and merits will be the theme of the future historian.

From the uniform success which has attended the career of the medical school of the University, assurance is given that the responsible charge which has been transmitted from generation to generation has been faithfully preserved; that the trust committed to its professors has always been regarded

---

John Andrew Shulze, Governor of the State of Pennsylvania.
John B. Gibson, Chief Justice.
George M. Dallas, Mayor of the City of Philadelphia.

"This inscription, deposited March 21st, A. D. one thousand eight hundred and twenty-nine, commemorates the laying of the corner-stone of the new Medical Hall, sixty-four years after the original organization of the Medical Faculty by Drs. Morgan and Shippen; the institution having in the meantime conferred the degree of Doctor of Medicine upon upwards of two thousand gentlemen educated within its walls, who, dispersed in different quarters of the United States, have thus extended the blessings of sound medical instruction, and in many instances organizing themselves into new schools of medicine, have thus made the University of Pennsylvania the parent of Medical Science in the United States."

as a sacred one, and that as such it has been emulously cherished. Nearly eight thousand pupils have graduated from the halls of the institution, and have diffused the blessings of their calling throughout the length and breadth of these United States. But another mission has been assigned to this ancient school of medicine; it has been the nursery of teachers. Deriving its descent from the University of Edinburgh, and more remotely through that institution from the University of Leyden, the Medical Department of the University of Pennsylvania has in turn become the parent of numerous schools of medicine, and has thus been the means of transferring the facilities of acquiring and cultivating medical science from the Old World to the New. To the compeers which have been brought into existence by its own and other instrumentalities and which are engaged in laudable and honorable efforts to disseminate true learning and science, and to improve the efficiency and maintain the exalted character of the Medical Profession, the University should ever extend a cordial sympathy. The reputation acquired by them is reactive. It is only by mutually sustained energy that the good of mankind can be successfully promoted.

# APPENDIX.

A.—page 57.

"Dr. Shippen's course of Anatomical Lectures will begin on Thursday, the 14th of November, 1765. It will consist of sixty lectures, in which the situation, figure, and structure of all the Parts of the Human Body will be demonstrated on the fresh subject; their respective uses explained, and their Diseases, with the Indications and Methods of Cure, briefly treated of; all the necessary Operations in Surgery will be performed, a Course of Bandages given, and the whole will conclude with a few plain and general directions in the Practice of Midwifery. Each Person to pay six Pistoles.

"Those who incline to attend the Pennsylvania Hospital, and have the Benefit of the curious anatomical Plates and Casts there, to pay six Pistoles to that useful Charity.

"A Course of Lectures on the Materia Medica, by *John Morgan, M. D.*, F. R. S., and Professor of Medicine in the College of Philadelphia. Price, Four Pistoles.

"This Course will commence on Monday, the 18th day of November, and be given three times a week, at the College, viz., Mondays, Wednesdays, and Fridays, at three o'clock in the afternoon, till finished, which will last between three and four months.

"To render these lectures as instructive as possible to students of Physic, the Doctor proposes, in the course of them, to give some useful Observations on Medicine in general, and the proper manner of conducting the study of Physic. The authors to be read in the Materia Medica will be pointed out. The various Substances made use of in Medicine will be reduced under Classes suited to the principal Indications in the cure of Diseases. Similar virtues in different Plants, and their comparative powers, will be treated of, and an Enquiry made into the different Methods

which have been used in discovering the Qualities of Medicines; the virtues of the most efficacious will be particularly insisted upon; the Manner of preparing and combining them will be shown by some instructive Lessons upon Pharmaceutic Chemistry: This will open to students a general Idea both of Chemistry and Pharmacy. To prepare them more effectually for understanding the art of prescribing with Elegance and Propriety, if time allows, it is proposed to include in this course some critical Lectures upon the chief Preparations contained in the Dispensatories of the Royal College of Physicians at London and Edinburgh. The whole will be illustrated with many useful Practical Observations on Diseases, Diet, and Medicines.

"No person will be admitted without a Ticket for the whole course. Those who propose to attend this course are desired to apply to the Doctor for Tickets, at least a week before the Lectures begin. A Dollar will be required of each student, to matriculate, which will be applied in purchasing Books for a Medical Library in the College for the Benefit of the Medical Students. JOHN MORGAN.

"P. S. Two convenient lower stores to be let by Dr. Morgan, under his dwelling on Water Street, near Walnut Street, where Mr. Mease lately lived, at a very reasonable rate."

## B.—page 91.

"COMMENCEMENT OF THE COLLEGE OF PHILADELPHIA, JUNE 28, 1769.

"The Degree of Bachelor of Medicine was conferred on James Armstrong, Josias Carroll Hall, John Hodge, John Houston, Thomas Pratt, Alexander Skinner, Myndert Veeder, and John Winder.

"The Medical Exercises were the following:—

"An oration in honor of Medicine, by Mr. Hall.

"A Forensic Dispute, whether Medicine hath done most good or harm in the world, by Messrs. Alexander Skinner and John Hodge.

"An oration on the most probable method of obtaining a good old age, by Mr. John Winder.

"In the composition of these exercises the young gentlemen gave full proofs of learning, as well as a thorough acquaintance with their subjects and the History of Physic, and they were

honored with the close attention and warm approbation of the audience. Mr. Skinner's part of the Forensic Dispute, in particular, seemed to afford singular entertainment, from the candid freedom which he took with his own Profession, and the very humorous manner in which he attempted to prove that Medicine had done more harm than good in the world; which Position of his was, however, very seriously and fully replied to by Mr. Hodge. To this succeeded a very solemn and interesting charge, in which the Provost addressed himself chiefly to the graduates in the arts, adding, with respect to the graduates in Physic, that he had prevailed on a gentleman of their own Profession, whose precepts would receive Dignity from his years and experience, to lay before them what he thought requisite as well for the honour of the College, as for promoting their own future honour and usefulness in life. This part was accordingly performed by Dr. Thomas Bond, in a manner so truly feeling and affectionate that it could not fail to make a serious impression on those for whom it was designed."—*Pennsylvania Gazette*, July 6, 1769.

## C.—page 75.

The following is the announcement of the course under the organization of the Faculty at the date specified:—

"College of Philadelphia, Oct. 13, 1769.

"Dr. Rush's Introductory Lecture to his course of Chemistry will be delivered publickly at the College on Monday, the 30th inst., at 11 o'clock in the Forenoon.

"Dr. Morgan's Course of Lectures on the Theory and Practice of Physic will begin on Monday, the 30th inst., at 3 o'clock in the afternoon.

"Dr. Bond's Course of Clinical Lectures will begin on Tuesday, the 31st inst., at 11 o'clock in the forenoon, at the Pennsylvania Hospital.

"Dr. Kuhn's Course of Materia Medica will begin on Wednesday, the first of November, at 11 o'clock in the forenoon.

"Dr. Shippen's Course of Anatomy and Surgery will be given on Wednesday, the first of November, at six o'clock in the evening.

"Those gentlemen who propose to attend these lectures are desired to call on the respective Professors for Tickets of Admis-

sion, any time before the course commences."—*Pennsylvania Gazette.*

## D.—page 75.

"MINUTES OF BOARD OF TRUSTEES, MAY 20, 1771.

"Agreed to the explanation made by the Faculty of the Clause for examining the Candidates for a Doctor's Degree in Physic, which is as follows:—

"That such Candidates be examined on their Theses before the day of Commencement, and on that day, immediately before receiving their Degrees, they be asked a few Questions in Latin on the subject of their Thesis, which they are to answer in the same language.

"It is the order of the Trustees that the Fee for the Degree of Doctor in Physic, be to the Provost one Guinea, and one Guinea to each of the Medical Professors, and that the Public Commencement be held on Friday, June 28th.

"It is ordered that all the Fees on Degrees be paid or settled for before the conferring of Degrees.

"At the Commencement June 28th, 1771, the Degree of Bachelor of Physic was conferred on Benjamin Alison, Jonathan Easton, John Kuhn, Frederick Kuhn, Bodo Otto, Robert Pottinger, and William Smith.

"Messrs. Jonathan Elmer, of N. J.; Jonathan Potts, of Pottsgrove, Pa.; James Tilton, of Dover; and Nicholas Way, of Wilmington, then presented themselves, agreeably to the Rules of the College, to defend, in Latin, the Dissertations printed for the Degree of Doctor in Physic.

"Mr. Elmer's Piece, 'De Causis et Remediis sitis in Febribus,' was impugned by Dr. Kuhn, Professor of Botany and Materia Medica.

"Mr. Potts, 'De Febribus intermittentibus, potissimum tertianis,' was impugned by Dr. Morgan, Professor of the Theory and Practice of Physic.

"Mr. Tilton's 'De Hydrope' was impugned by Dr. Shippen, Professor of Anatomy.

"Mr. Way's 'De Variolarum Insitione' was impugned by Dr. Rush, Professor of Chemistry.

"Each of the candidates having judiciously answered the objections made to some parts of their Dissertations, the Provost conferred upon them the Degree of Doctor of Physic, with par-

ticular solemnity, as the highest mark of literary honour which they could receive in the Profession.

"Dr. Morgan, who was appointed to that part of the Business, entered into a particular account of those Branches of study which the Medical Gentlemen ought still to prosecute with unremitted Diligence, if they wished to be eminent in their Profession, laying down some useful rules for an honourable practice in the Discharge of it. He observed that the 'oath' which was prescribed by Hippocrates to his Disciples had been generally adopted in Universities and Schools of Physic on like occasions, and that laying aside the form of oaths, the College, which is of a free spirit, wished only to bind its Sons and Graduates by the ties of Honour and Gratitude, and that therefore he begged leave to impress upon those who had received the distinguished Degree of Doctor, that as they were among the foremost sons of the Institution, and as the Birth Day of Medical Honours had arisen upon them with auspicious lustre, they would, in their practice, consult the safety of their Patients, the good of the community, and the dignity of their Profession, so that the Seminary from which they derived their Titles in Physic, might never have cause to be ashamed of them."

## E.—page 81.

*** "It has given Dr. Shippen much pain to hear that notwithstanding all the caution and care he has taken to preserve the utmost decency in opening and dissecting dead bodies, which he has persevered in chiefly from the motive of being useful to mankind, some evil-minded persons, either wantonly or maliciously, have reported to his disadvantage that he has taken up some persons who are buried in the Church Burying Ground, which has distressed the minds of his worthy Fellow Citizens. The Doctor, with much pleasure, improves this opportunity to declare that the Report is absolutely false, and to assure them that the bodies he dissected were either of persons who had wilfully murdered themselves, or were publickly executed, except now and then one from Potter's field, whose death was owing to some particular disease, and that he never had one body from the church or any private Burial Place."—*Pennsylvania Gazette*, Oct. 31, 1765.

## F.—page 120.

*Number of Graduates from* 1768 *to* 1810.

It is impossible to present a complete list of the students attending lectures in the College and University prior to 1810. No catalogues are in existence to which to refer for information, and all that can be known of the progressive prosperity of the School is derived from the annual registration of the graduates. For a long time no regular minutes of the Faculty of Medicine appear to have been kept, and our source of knowledge of the affairs of the Medical Department is the record of the Board of Trustees. The system of rotation in the office of Dean was not calculated to secure the methodical transcription of the business operations of the Faculty, which is now desirable in determining points of historical interest, and, until the appointment of Dr. Horner as permanent Dean, perfect regularity in the preservation of all the minutiæ connected with attendance and graduation, was not introduced. The following summary may be regarded as correct with reference to the graduates within the period specified above; it was carefully prepared by Drs. Wood and Horner, and introduced into the sketch of the Medical Department published with the general list of graduates.[1]

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A. D. 1768, | Graduates | . . | 10 | A. D. 1783, | Graduates | . . | 4 |
| " 1769, | " | . . | 8 | " 1784, | " | . . | 8 |
| " 1770, | " | . . | 1 | " 1785, | " | . . | 9 |
| " 1771, | " | . . | 7 | " 1786, | " | . . | 4 |
| " 1773, | " | . . | 2 | " 1787, | " | . . | 5 |
| " 1780, | " | . . | 3 | " 1788, | " | . . | 6 |
| " 1781, | " | . . | 2 | " 1789, | " | . . | 3 |
| " 1782, | " | . . | 8 | | | | |

It will be perceived that there is a deficiency from 1773 to 1780. This was the period of the political troubles, which occupied the attention of the country, and of the most stirring events of the Revolution.

| *In the College.* | | | | *In the University.* | | | |
|---|---|---|---|---|---|---|---|
| A. D. 1790, | Graduates | . . | 5 | A. D. 1790, | Graduates | . . | 12 |
| " 1791, | " | . . | 5 | " 1791, | " | . . | 1 |

[1] The General Catalogue of Graduates was published in 1839, and revised in 1845.

*In the University from* 1792 *to* 1810.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A. D. 1792, | Graduates | . . | 6 | A. D. 1802, | Graduates | . . | 22 |
| " 1793, | " | . . | 10 | " 1803, | " | . . | 15 |
| " 1794, | " | . . | 8 | " 1804, | " | . . | 13 |
| " 1795, | " | . . | 4 | " 1805, | " | . . | 24 |
| " 1796, | " | . . | 4 | " 1806, | " | . . | 21 |
| " 1797, | " | . . | 14 | " 1807, | " | . . | 31 |
| " 1798, | " | . . | 12 | " 1808, | " | . . | 60 |
| " 1799, | " | . . | 8 | " 1809, | " | . . | 63 |
| " 1800, | " | . . | 10 | " 1810, | " | . . | 65 |
| " 1801, | " | . . | 10 | | | | |

From 1810 to the present date, the lists of students and of graduates have been carefully recorded; the following is the summary:—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A. D. 1810–11, | Matriculates | . . | 406 | | Graduates | . . | 63 |
| " 1811–12, | " | . . | 387 | | " | . . | 70 |
| " 1812–13, | " | . . | 349 | | " | . . | 61 |
| " 1813–14, | " | . . | 345 | | " | . . | 62 |
| " 1814–15, | " | . . | 319 | | " | . . | 44 |
| " 1815–16, | " | . . | 388 | | " | . . | 70 |
| " 1816–17, | " | . . | 436 | | " | . . | 74 |
| " 1817–18, | " | . . | 465 | | " | . . | 87 |
| " 1818–19, | " | . . | 422 | | " | . . | 102 |
| " 1819–20, | " | . . | 330 | | " | . . | 78 |
| " 1820–21, | " | . . | 325 | | " | . . | 66 |
| " 1821–22, | " | . . | 357 | | " | . . | 77 |
| " 1822–23, | " | . . | 455 | | " | . . | 101 |
| " 1823–24, | " | . . | 424 | | " | . . | 96 |
| " 1824–25, | " | . . | 487 | | " | . . | 111 |
| " 1825–26, | " | . . | 440 | | " | . . | 114 |
| " 1826–27, | " | . . | 441 | | " | . . | 131 |
| " 1827–28, | " | . . | 409 | | " | . . | 133 |
| " 1828–29, | " | . . | 362 | | " | . . | 109 |
| " 1829–30, | " | . . | 421 | | " | . . | 127 |
| " 1830–31, | " | . . | 410 | | " | . . | 151 |
| " 1831–32, | " | . . | 386 | | " | . . | 134 |
| " 1832–33, | " | . . | 367 | | " | . . | 117 |
| " 1833–34, | " | . . | 432 | | " | . . | 145 |
| " 1834–35, | " | . . | 390 | | " | . . | 135 |
| " 1835–36, | " | . . | 398 | | " | . . | 132 |
| " 1836–37, | " | . . | 405 | | " | . . | 162 |
| " 1837–38, | " | . . | 380 | | " | . . | 157 |
| " 1838–39, | " | . . | 403 | | " | . . | 158 |
| " 1839–40, | " | . . | 444 | | " | . . | 163 |
| " 1840–41, | " | . . | 412 | | " | . . | 166 |
| " 1841–42, | " | . . | 363 | | " | . . | 114 |

| | | | | | |
|---|---|---|---|---|---|
| A. D. 1842–43, | Matriculates | . . | 350 | Graduates | . . 117 |
| " 1843–44, | " | . . | 424 | " | . . 153 |
| " 1844–45, | " | . . | 446 | " | . . 164 |
| " 1845–46, | " | . . | 462 | " | . . 168 |
| " 1846–47, | " | . . | 411 | " | . . 163 |
| " 1847–48, | " | . . | 508 | " | . . 174 |
| " 1848–49, | " | . . | 499 | " | . . 190 |
| " 1849–50, | " | . . | 439 | " | . . 178 |
| " 1850–51, | " | . . | 466 | " | . . 167 |
| " 1851–52, | " | . . | 410 | " | . . 151 |
| " 1852–53, | " | . . | 431 | " | . . 166 |
| " 1853–54, | " | . . | 463 | " | . . 177 |
| " 1854–55, | " | . . | 426 | " | . . 178 |
| " 1855–56, | " | . . | 372 | " | . . 142 |
| " 1856–57, | " | . . | 454 | " | . . 154 |
| " 1857–58, | " | . . | 435 | " | . . 145 |
| " 1858–59, | " | . . | 409 | " | . . 142 |
| " 1859–60, | " | . . | 528 | " | . . 173 |
| " 1860–61, | " | . . | 465 | " | . . 176 |
| " 1861–62, | " | . . | 309 | " | . . 92 |
| " 1862–63, | " | . . | 319 | " | . . 78 |
| " 1863–64, | " | . . | 401 | " | . . 101 |
| " 1864–65, | " | . . | 425 | " | . . 117 |
| " 1865–66, | " | . . | 520 | " | . . 164 |
| " 1866–67, | " | . . | 468 | " | . . 156 |
| " 1867–68, | " | . . | 408 | " | . . 153 |

## G.—page 195.

*Professors of the University connected with the Pennsylvania Hospital.*

| | | | |
|---|---|---|---|
| 1. JOHN MORGAN, . . | from 1773 to 1777, | 8 yrs. 11 mos. | |
| | " 1778 to 1783, | | |
| 2. ADAM KUHN, . . . . | " 1774 to 1781, | 22 yrs. 6 mos. | |
| | " 1782 to 1798, | | |
| 3. JAMES HUTCHINSON, . . | " 1777 to 1778, | | |
| | " 1779 to 1793, | | |
| 4. WILLIAM SHIPPEN, JR., | " 1778 to 1779, | 11 yrs. 11 mos. | |
| | " 1791 to 1802, | | |
| 5. BENJAMIN RUSH, . . . | " 1783 to 1813, | 29 yrs. 10 mos. | |
| 6. CASPAR WISTAR, . . . | " 1793 to 1810, | 16 yrs. 5 mos. | |
| 7. PHILIP SYNG PHYSICK, . | " 1794 to 1816, | 22 yrs. 1 mo. | |
| 8. BENJAMIN SMITH BARTON, | " 1798 to 1815, | 17 yrs. 6 mos. | |
| 9. JOHN REDMAN COXE, . | " 1802 to 1807, | 4 yrs. 9 mos. | |
| 10. THOMAS C. JAMES, . . | " 1807 to 1832, | 25 yrs. 10 mos. | |

| | | | |
|---|---|---|---|
| 11. John Syng Dorsey, . | from 1810 to 1818, | 8 yrs. | 6 mos. |
| 12. Hugh L. Hodge, . . | " 1832 to 1854, | 22 yrs. | |
| 13. George B. Wood, . . | " 1835 to 1859, | 24 yrs. | |
| 14. Jacob Randolph, . . | " 1835 to 1848, | 12 yrs. | 10 mos. |
| 15. George W. Norris, . | " 1836 to 1863, | 27 yrs. | |
| 16. William Pepper, . . | " 1842 to 1859, | 17 yrs. | |
| 17. Joseph Carson, . . . | " 1849 to 1854, | 5 yrs. | |
| 18. Francis Gurney Smith, | " 1859 to 1864, | 5 yrs. | |

*Professors of the University connected with the Almshouse.*

[Philadelphia Hospital.]

| | |
|---|---|
| Adam Kuhn, . . . . . | 1774–1776 |
| Benjamin Rush . . . . . | 1774–1777 |
| Samuel P. Griffitts, . . . . | 1788–1789 |
| Caspar Wistar, . . . . . | 1788–1790 |
| William Shippen, Jr. . . . . | 1789–1790 |
| Thomas C. James, . . . . . | 1797–1821 |
| Philip Syng Physick, . . . . | 1801–1805 |
| Benjamin Smith Barton, . . . | 1804–1805 |
| John Syng Dorsey, . . . . . | 1805–1811<br>1814–1818 |
| Nathaniel Chapman, . . . . . | 1805–1815<br>1822–1832 |
| William Gibson, . . . . . | 1821–1840 |
| William E. Horner, . . . . | 1821–1845 |
| Samuel Jackson, . . . . . | 1822–1845 |
| Hugh L. Hodge, . . . . . | 1822–1835 |
| Jacob Randolph, . . . . . | 1832–1837 |
| Henry H. Smith, . . . . . | 1854–1857 |
| R. A. F. Penrose, . . . . . | 1854–1868 |
| Joseph Carson, . . . . . | 1855–1857 |
| Alfred Stillé, . . . . . | 1865 |

## H.—page 133.

The first Society established in Philadelphia originated with Dr. Morgan, and a number of other practitioners, including Dr. J. Kearsley, Jr., Gerardus Clarkson, James A. Bayard, Robert Harris, and George Glentworth. It was called the "*Philadelphia Medical Society.*" To this Association reference must have been made by Dr. Rush in a letter to Dr. Morgan, in 1768, when he says:

"By means of Dr. Huck's and Dr. Franklin's friends, I have been introduced to Sir John Pringle, and have the honour of belonging to a Medical Society, which meets every Wednesday evening at his house. The plan of it is not unlike the Medical Society you have established in Philadelphia; it consists of only eight or ten, who are all Sir John's particular friends." The Society in which Dr. Morgan and the gentlemen mentioned were interested, did not survive the Revolution, when another Association was formed, entitled the "*American Medical Society.*" With respect to this we have met with the following notice:—

"The *American Medical Society* will meet at the College on Monday, Nov. 2d (1783), at 7 o'clock in the evening.

HENRY STUBER, *Sec.*"

Four other Societies subsequently came into existence. The College of Physicians was organized in 1787, and was the third body of medical men associated for medical improvement. Next came the Philadelphia Medical Society, the Academy of Medicine, and the Medical Lyceum, which latter, in 1816, was merged into the Medical Society.

The *Philadelphia Medical Society* was instituted in 1789, was first incorporated in 1792, and re-chartered in 1827. It was intended "for the purpose of mutual improvement in the science of medicine, and for the promoting of medical knowledge." It consisted of Junior and Honorary members; the first-mentioned pertaining to the class of students. The exercises consisted of papers on medical subjects, and debates upon them, in which all were permitted to participate. This Society, after a spirited career of sixty years, ceased an active existence in 1846. Besides Drs. Rush and Barton, two other Professors of the University were elected to the office of President. Dr. Physick succeeded Dr. Barton in 1815, and Dr. Chapman succeeded Dr. Physick in 1837. It was the fourth Medical Society organized in this city, and was evidently founded in imitation of the Edinburgh Medical Society.

# INDEX.


Abernethy, Mr., 178
Abrogation of College charter, 89
Accessory course of lectures, 191
Ad eundem footing, 105, 148
Advertisement of Dr. Shippen with regard to midwifery, 113
Agnew, Dr. D. Hayes, 196
Albinus, 31
Aldricks, Director, 22
Allen, Dr. Harrison, 193
Almshouse, 196
Alston, Dr., of Edinburgh, 78
American Philosophical Society, History of, 32
American Society, 32
American Medical Society, 222
American Journal of Medical Sciences, 178
Anatomy, Dr. Cadwalader's lectures on, 40
Dr. Hunter, of Newport, lectures on, 40
Dr. Shippen's lectures on, 40
Announcement of Dr. Shippen's lectures in 1862, 40
First, of the medical lectures in the College, 1765, 56
lectures of 1767, 61
Auxiliary Faculty, 191

Bachelor of Medicine, degree of, conferred by College in 1768, 68
conferred in New York in 1769, 68
abolition of degree of, 98
Baldwin, Dr. William, 131
Bard, Dr. John, 29, 30
Bard, Dr. Samuel, 68
Barthez, doctrines of, 176
Barton, Dr. Benjamin Smith, appointed Professor of Natural History and Botany, 93
elected Professor of Materia Medica, 103
elected to the Chair of Practice, 125
sketch of his life, 126
Barton, Dr. William P. C., 130, 135
Bartram, John, 33
William, 90
Beck, Dr., on medical honors, 67
Bell, Dr. John, of Philadelphia, 157
John, of Edinburgh, 186
Sir Charles, 186
Bigelow, Dr. Jacob, 130
Black, Dr. Joseph, 85
Boerhaave, 30
Bond, Dr. Thomas, 29, 30, 91
letter to the Committee of Safety, 88
clinical lectures in the Pennsylvania Hospital, 57
Bond, Dr. Phineas, 29, 33
Borgetta, Dr. Maria Bernardus, 91
Botany, Dr. Kuhn appointed Professor of, 65
Botanical Garden, Bartram's, 130
of the University, 135

Cadwalader, Dr. Thomas, 29, 31
Caldwell, Dr. Charles, 198
Carson, Dr. John, elected Professor of Chemistry, 101
Dr. Joseph, elected Professor of Materia Medica and Pharmacy, 179
Caldwell, Dr. Charles, 135
Chalmers, Dr., 25
Chapman, Dr. Nathaniel, appointed with Dr. James to teach obstetrics, 115
appointed Professor of Materia Medica, 125
appointed Professor of Practice, 13
sketch of his life, 172
Church, Dr. John, 198
Clayton, Dr., 25
Clossy, Dr. Samuel, 68
Clinical instruction, 195
in Hospital, 196
in Almshouse, 196
Colden, Cadwallader, 25

Coleman, William, 33
College of Philadelphia, foundation of, 52
revival of, 92
union of with the University, 97
of Physicians, 221
Colman, Rev. Benjamin, 21
Colonists of North America, 18
Commencement of 1768, 69
of 1769, 71
of 1771, 75
Cooper, Dr. Thomas, 135
Sir Astley, 186
Coxe, Dr. John Redman, elected Professor of Chemistry, 108
transferred to the Chair of Materia Medica, 142
sketch of his life, 156
Cullen, Dr. William, 82, 128
Cummings, Dr., 198
Currie, Dr. James, 45

Darlington, Dr. William, 130
De Lancey, Rev. Wm. H., Provost, 210
Degree of M. B., College of Philadelphia, 67
of M. D., 71
of M. D., University of Edinburgh, 80
Degrees in Pharmacy, 145
in Medicine, 66
rules for 59, 95, 117
Des Cartes, 122
De Costa, Dr. Joannes Franciscus, 91
Dewees, Dr. William P., appointed Adjunct Professor of Obstetrics, 148
elected Professor of, 163
sketch of his life, 161
Difficulties of filling the professorships in the University in 1781–82, 90
Dispensary, Philadelphia, 102
Clinics, 202
Dorsey, John Syng, elected to the Chair of Materia Medica, 133
elected to the Chair of Anatomy, 142
sketch of his life, 142
Drummond, Mr., 78

Early medical teaching, 39
Edinburgh, foundation of the University of, 79
Effects of the American Revolution on the College, 85
Evans, Dr. Cadwalader, 29
Ewing, Rev. Dr. John, Provost, 90
Examinations for degrees, 68
mode of, 115

Faculty, Medical, of College in 1769–70, 75
Faculty of University in 1835, 164
1869, 193
of University of Edinburgh in 1768, 85
Fees in College for medical instruction, 65
Fothergill, Dr. John, 37–41
Foulke. Dr. John, 89
Fox, Dr. George, case of Cæsarean section, 188
Franklin, Dr., 33, 52

Garden, Dr., 25
Garden, Botanical, 130, 135
Gastric origin of fever, 178
Gaubius, 31
Gerhard, Dr. William, 202
Gibson, Dr. William, appointed Professor of Surgery, 144
sketch of his life, 185
Mr. Joseph, 111
Godfrey, Thomas, 33
Godman, Dr. John D., 178
Gordon, Thomas F., 22
Graduates first in Medicine, 69
Graduation, rules for, 117
Graeme, Dr. Thomas, 29, 36
Gratuitous studentships, 146
Gregory, Dr. John, 83, 85
Green Box, 116
Green House, Dr. Barton's, 131
Green Room, 199
Griffitts, Dr. Samuel P., appointed Professor of Materia Medica and Pharmacy, 93
sketch of his life, 102

Hare, Dr. Robert, appointed Professor of Chemistry, 142
sketch of his life, 165
Hartshorne, Dr. Henry, 193
Hayden, Dr. F. V., 193
Hays, Dr. Isaac, 178
Hewson, Mr. William, 48
Dr. Thomas T., 135
Hodge, Dr. Hugh L., appointed Professor of Obstetrics, 160
resignation of, 189
Home, Dr. Francis, 85
Honors, first medical, 66
Hooper, Dr., 31
Hope, Dr. John, 85
Hopkinson, Thomas, 33
Horner, Dr. William E., appointed Assistant to Dr. Physic, 144
appointed Adjunct Professor of Anatomy, 144

Horner, Dr. William E., appointed Professor of Anatomy, 149
sketch of his life, 182
Horsfield, Dr. Thomas, 131
Hosack, Dr. David, on medical honors, 67
Hospital, Pennsylvania, 36
Howard, Thomas, 21
Hunter, Dr. William, of Newport, 40
Dr. William, of London, 48
Mr. John, 48
Hutchinson, Dr. James, elected Professor of Chemistry and Materia Medica in the University, 94
sketch of his life, 99

Instruction, clinical, 195

Jackson, Dr. Samuel, appointed Assistant Professor, 149
elected Professor of the Institutes, 160
resignation of, 189
James, Dr. Thomas Chalkley, elected Professor of Midwifery, 114
sketch of his life, 154
Johnson, Dr. William P., 202

Kalm, Professor, 24
Kearsley, Dr. John, 28
Dr. John, Jr., 29
Kuhn, Dr. Adam, elected Prof. of Materia Medica and Botany, 64
elected Professor of Practice in the University, 93
sketch of his life, 64

La Roche, Dr. René, 53
Lecture term altered, 171
Lectures, Dr. Shippen's, 40
clinical, in Hospital, 57, 194
in Almshouse, 196
of Dr. Smith, Provost, 62
accessory course, 191
Leib, Dr., 197
Leidy, Dr. Joseph, elected Professor of Anatomy, 185
Letsom, Dr., 127
Leyden, University of, 30, 80
Lining, Dr., of S. C., 25
Location of Almshouse, 199
of College buildings, 205
of University buildings, 207
Logan, James, 40

Magill, Mr., 78
McKenzie, Dr., 49
McClung, Dr. James, 90
Mease, Dr. James, 145
Medal awarded to Dr. Morgan, 58
Medical teaching in America, first, 39
Middleton, Dr. Peter, 24, 68
Midwifery, separation from Anatomy, 144
Miller, Dr. Edward, 178
Mitchell, Dr., of Virginia, 25
Mobs in Edinburgh and Philadelphia, 81
Monro, Mr. Alexander, 78
Monteith, Dr., 78
Moore, Dr. Samuel Preston, 36
Morgagni, 46
Morgan's, Dr. John, Address, 44
elected the Professor of Theory and Practice of Physic, 53
sketch of his life, 44
death of, 93
Moyes', Dr., lectures, 102
Museum, Wistar and Horner, 140, 184

Nancrede, Dr. Joseph, case of Cæsarean section, 188
National Pharmacopœia, 103
Natural History, Dr. Barton appointed Professor of in College, 93
Natural Science professorships, 135
Newcomb, Mr. Daniel, permitted to attend lectures on ad eundem footing, 105
Norris, Dr. George W., elected Clinical Professor, 203
North American Medical and Surgical Journal, 178
Number of professorships in 1811, 116
Nuttall, Mr. Thomas, 128

Obstetrics, separation from Anatomy, 110
estimation of in Europe, 110
instruction on, in Scotland and England, 111
Dr. Thomas C. James elected Professor of, 114
made essential for a degree, 115

Owen, Dr. Griffith, 27

Parsons, William, 33
Patterson, Dr. Robert M., 32
Penn, William, 26
Penn, Thomas, Esq., letter to the Trustees of the College of Philadelphia, 50
Penrose, Dr. R. A. F., elected Professor of Obstetrics, &c., 189
Pepper, Dr. William, elected Professor of Practice, 188
sketch of his life, 189
Petersen, Jan, of Alfendolft, 22

Petition to the Legislature with regard to irregular practitioners, 105
Pharmacopœia, National, 108
Philadelphia Journal of the Medical and Physical Sciences, 198
Medical and Physical Journal, 132
Physicians, first, of Philadelphia, 26
Physic, Professorship of Theory and Practice instituted, 53
Physick, Dr. Philip Syng, elected Professor of Surgery, 104
resignation, and sketch of his life, 149
Pictures, anatomical, donation of by Dr. Fothergill to Pennsylvania Hospital, 41
Plummer, Dr. Andrew, 78
Potterfield, Dr., 79
Potts, Dr. Jonathan, letter, 87
graduation, 69–75
Priestley, Dr. Joseph, refusal to accept the Chair of Chemistry, 101
Publication of Dr. Cullen's lectures on Materia Medica, and First Lines, in Philadelphia, 84
Pursh, Frederick, Mr., 126

Qualifications for the Professorship of Chemistry, letter from Faculty, 108
for the Bachelor's degree in medicine, 60
for the degree of Doctor of Medicine, 60, 95
for the degree of M. D. in the University of Edinburgh, 80

Rae, Dr. John, 85
Ramsay, Dr. David, 72, 90, 124
Randolph, Dr. Jacob, elected Clinical Professor, 203
Redman, Dr. John, 29, 36, 53
Reese, Dr. John J., 193
Repeal of the act of the Legislature abrogating the charter of the College, 91
Revolution, effects of the American, on the College, 86
Rhodes, Samuel, 33
Riollay, Dr. Francis, 178
Rogers, Dr. James B., elected Professor of Chemistry, 181
sketch of his life, 182
Rogers, Dr. Robert E., elected Prof. of Chemistry, 182
Rules for the government of the Medical School of the College, 59
Rush, Dr. Benjamin, elected Professor of Chemistry, 71
Rush, Dr. Benjamin, elected Professor of Theory and Practice in the College, 93
elected Professor of Theory and Practice of Institutes and Clinical Medicine in the University, 104
sketch of his life, 122
Rutherford, Dr. John, 78
Sargent, John, Esq., medal, 58
Services of the Medical Professors and graduates in the American Revolution, 87
Sewell, Dr. Thomas, 21
on medical honors, 67
Shippen, Dr. William, Sr., 29, 53
Dr. William, Jr., application for professorship, and election, 55
sketch of his life, 84
death of, 105
Shoeff, 25
Silliman, Dr., 165
Sinclair, Dr. Andrew, 78
Smellie, Dr., 112
Smith, Dr. William, Provost, 62
reappointment, 92
Dr. James, 68
Smith, Dr. Henry H., elected Professor of Surgery, 188
Smith, Dr. Francis Gurney, elected Professor of Institutes, 189
Mr. Robert, Professor of Obstetrics in Edinburgh, 111
Society, American Philosophical, 32
American, 34
American Medical, 222
Philadelphia Medical, 222
Somers, Dr., 31
Stacy, Mahlon, 19
Stillé, Dr. Alfred, elected Professor of Theory and Practice, etc., 191
Story, Thomas, 27
Studentships, gratuitous, 146
Surgery separated from Anatomy, 104

Tennent, Dr., of Virginia, 25
Dr. John V. B., 68
Thatcher, Dr. Thomas, 21
on medical and clerical professions, 21
Theses, 76, 126
Thomas, Gabriel, 19, 23, 25
Thomson's, Dr. John, Life of Dr. Cullen, 83
Tilton, Dr. James, 87, 90
Trustees, Medical, of College in 1765, 53
in 1868, 53

University of Edinburgh, 77
of the State of Pennsylvania, 89
of Pennsylvania, 97
of Maryland, 187
buildings, 207

Von Soemmering, 140

Welcome, Ship, 26
Whytt, Dr. Robert, 82
Williams, Rev. Nathaniel, 21
Wilson, Rev. Matthew, 22
Wistar, Dr. Caspar, elected Professor of Chemistry and Institutes in the College, 93
Wistar, Dr. Casper, elected Professor of Anatomy, 107
sketch of his life, 135
Wood, Dr. George B., elected Professor of Materia Medica, 160
elected Professor of Practice, etc, 179
resignation of, 188
Dr. Horatio, 193
Woodhouse, Dr. James, elected Professor of Chemistry, 102
sketch of his life, 107

Young, Dr. Thomas, 85, 111

Zachary, Dr. Lloyd, 29, 36

# LINDSAY & BLAKISTON'S

*NEW ISSUES FOR THE PRESENT SEASON, NOW READY.*

JANUARY, 1869.

1.

## On Chronic Bronchitis,

Especially as Connected with Gout, Emphysema, and Diseases of the Heart. Being Clinical Lectures delivered at the Middlesex Hospital, by E. HEADLAM GREENHOW, M.D., Fellow of the Royal College of Physicians, Consulting Physician to the Western General Dispensary, &c., &c.

One volume. Octavo. Price, $2.25.

The purpose of this volume is to demonstrate the frequently constitutional character of Chronic Bronchitis, and its intimate association with many other diseases, in the relation either of cause or of consequence.

In the earlier lectures the author has endeavored to show, from the results of a large analysis of cases, and also from the history of many individual cases, in how small a proportion of bronchitic patients the liability to suffer from Chronic Bronchitis can be traced exclusively to catarrh, and in how large a proportion it can be referred to catarrh only in connection with one of three internal predisposing causes; namely, long-standing mechanical irritation of the bronchial membrane; some form of Dyscrasia; or previous illness of some other kind. The Gouty Dyscrasia is shown to be, of all others, perhaps the most fruitful source of Chronic Bronchitis. The fifth and sixth lectures deal with the subject of Pulmonary Emphysema; showing from an analysis of cases, and also from detailed cases, that Emphysema is frequently hereditary; that it is frequently found in connection with the Gouty Dyscrasia; and, lastly, that it is not unfrequently developed, in these circumstances, previous to the existence of Chronic Bronchitis. These facts, in the Author's opinion, prove the mainly constitutional character of Pulmonary Emphysema, and lead to the further conclusion that the degeneration of the tissue of the lungs which predisposes them to yield to mechanical causes of distension, in coughing or otherwise, is often a result of the Gouty Dyscrasia. In the seventh and eighth lectures, the relations between Bronchitis and Diseases of the Heart are fully considered. Bronchitis is shown to be a frequent sequel to diseases of the left side of the heart; whilst it is, on the other hand, itself a direct cause of disease of the right side of the heart.

The practical conclusion suggested by the work is that the first step towards the successful treatment of Chronic Bronchitis must be the discovery, and, in so far as may be possible, the removal, or alleviation, of the internal condition which, in so many cases, is the remote cause of the patient's ailment.

2.

## The Pennsylvania Hospital Reports. (Published Annually.)

Volume 2, for 1869. Containing Papers by Drs. ADDINELL HEWSON, T. G. MORTON, DA COSTA, HUTCHINSON, E. HARTSHORNE, JOHN ASHHURST, JR., HUNT, PACKARD, AGNEW, HARLAN, TYSON, RICHARDSON, J. F. MEIGS, WM. PEPPER, &c., &c. Illustrated by lithographic plates and engravings on wood.

Octavo, cloth. Price, to subscribers, $4.00.

3.

## A Treatise on the Diseases of the Eye,

Illustrated by Ophthalmoscopic Plates done in Chromo-Lithography, and engravings on wood. By J. Sœlberg Wells, Professor of Ophthalmology in King's College, London; Ophthalmic Surgeon to King's College Hospital, and Assistant Surgeon to the Royal London Ophthalmic Hospital, &c., &c.

One volume, octavo, bevelled cloth. Price, $9.00.

The great reputation of the Author of this volume, and his long experience in the treatment of Diseases of the Eye, together with the unusual facilities possessed by him, as Professor of Ophthalmology, and as Surgeon to King's College, and the Royal London Ophthalmic Hospital, has enabled him to make it the most complete and comprehensive work on the subject in the English Language.

It embodies all the most recent views in Ophthalmology, as well as the newest operations upon the eye, fully illustrated. The Ophthalmoscope and its Use in the internal diseases of the eye, receives, also, the fullest consideration, and is illustrated by beautifully colored plates.

4.

## A History of the Medical Department of the University of

Pennsylvania, from its foundation in 1765, with illustrative sketches of Deceased Professors, &c., &c. By Joseph Carson, M.D., Professor of Materia Medica and Pharmacy in that Institution.

One volume, octavo. Price, $3.00.

5.

## Kidney Diseases, Urinary Deposits, and Calculous Disorders,

Their nature and treatment, containing seventy plates and tables for the Clinical Examination of Urine. By Lionel S. Beale, M.D., F.R.S., &c., &c. Third edition, much enlarged.

Octavo, printed on tinted paper. Price, $12.00.

ALSO,

**Beale's How to Work with the Microscope.**

Fourth Edition. Over 400 Illustrations.

Octavo, cloth. Price, $10.00.

**Beale, The Microscope in its Application to Practical Medicine.**

Third edition, with numerous Illustrations.

Octavo. Price, $7.50.

6.

## Mackenzie on the Use of the Laryngoscope

In Diseases of the Throat. Second Edition, with additions, and an Essay on Hoarseness, Loss of Voice, and Stridulous Breathing in relation to Nervo-Muscular affections of the Larynx. Edited by J. Solis Cohen, M.D., and Illustrated by two lithographic plates, and fifty-one engravings on wood.

Octavo. Price, $3.00.

7.

## Cazeaux's Great Work on Obstetrics,

The most RECENT AND COMPLETE TEXT BOOK now published. The fifth American, from the seventh French edition, greatly enlarged and improved, containing over 1100 royal octavo pages, and 175 illustrations. Price, bound in cloth, $6.50.

do. do. leather, $7.50.

8.

*"The Representative Book of Medical Science."*—LONDON LANCET.

## Aitken's Science and Practice of Medicine.

Second American from the fifth London edition. Now ready. In 2 volumes, containing over 2000 royal octavo pages, a Colored Map, Lithographic Plate, and one hundred and thirty Illustrations on Wood. Two volumes, royal octavo, bound in cloth, $12.00.

do. do. do. leather, $14.00.

The first American edition of this work was out of print in little more than twelve months after publication. So rapid a sale may be accepted as an evidence of its appreciation by the profession of this country, and as a recognition of its claim to being a fair exposition of the Medical Science and Art of the day.

The present edition, besides being thoroughly revised by the Author, is edited with special reference to the wants of the American practitioner; it contains many additions to the Author's text, and THIRTY-SIX NEW articles, several of them on subjects now introduced for the first time in any text-book on the practice of medicine. The new matter thus added, by the American Editor, Meredith Clymer, M.D., being equal to over 500 pages of the London edition.

9.

## Hillier's Clinical Treatise on the Diseases of Children.

An entirely new and original work.

8vo., cloth. Price, $3.00.

10.

## Hewitt's Diagnosis, Pathology and Treatment of Diseases

Of Women, including the Diseases of Pregnancy. Second edition, revised and enlarged, and containing an entirely new series of Illustrations. Price, in cloth, $5.00.

do. leather, $6.00.

11.

## Prof. Biddle's Materia Medica,

For the use of Students.

The third revised and enlarged edition.

Price, $4.00.

12.

## Lindsay & Blakiston's Physicians' Visiting List,

For 1869. Published Annually. Of various sizes, prices, and styles of binding. See complete catalogue.

13

## Beasley's Druggists' General Receipt Book

And Veterinary Formulary. The seventh American edition.
Price, $3.50.

14.

## Birch, on Constipated Bowels,

The various causes of the disease, and modes of treatment.
Third edition, 12mo., cloth, $1.25.

15.

## Wythe's Physicians' Pocket Dose and Symptom Book.

Eighth edition, 32mo., cloth. Price, $1.00.
do. do. leather, with tucks and pockets, $1.25.

16.

## Cleaveland's Pronouncing Medical Lexicon,

A new and improved edition (the eleventh).
Price, $1.25.

17.

## Richardson's Practical Treatise on Mechanical Dentistry.

A new and much enlarged edition, containing 150 Illustrations.
Bound in Leather. Price, $4.50.

18.

## Taft's Practical Treatise on Operative Dentistry.

A new and thoroughly revised edition, with over 100 Illustrations.
Price, bound in leather, $4.50.

19.

## Robertson's Manual on Extracting Teeth,

With Illustrations. A new revised edition.
Price, $1.50.

20.

## Goff's Physicians' Combined Day Book, Ledger and Register

For Patients. (For plan and description see Prospectus in general Catalogue.) A quarto volume, strongly bound.
Price, $12.00.

## A FULL DESCRIPTIVE CATALOGUE

Of all our Publications, with prices attached, furnished free by Mail or otherwise, upon application.

LINDSAY & BLAKISTON, *Publishers*,
25 South Sixth St., Philadelphia.