The Hunterian oration delivered in the theatre of the Royal College of Surgeons in London, on the fourteenth of February, 1833 / by John Howship.

THE

HUNTERIAN ORATION:

DELIVERED

IN THE THEATRE

OF THE

ROYAL COLLEGE OF SURGEONS

IN LONDON,

ON THE FOURTEENTH OF FEBRUARY,

1833.

BY

JOHN HOWSHIP,

TEACHER OF SURGERY; AND SURGEON TO THE ST. GEORGE'S INFIRMARY.

Member of the Royal College of Surgeons in London; Medico-chirurgical Society, and Royal Medical Society of Edinburgh; Faculty of Medicine and Surgery, New Brunswick; Société Medicale d'Emulation, Paris; Membre d'Honneur de la Société pour les Sciences Naturelles et Medicale, a Dresde; Academia Cæsarea Naturæ Curiosorum, Bonn; et Societatis Regiæ Medicæ, Copenhagen. Author of Practical Observations in Surgery and Morbid Anatomy; Practical Observations on the Diseases that affect the Secretion and Excretion of Urine; Practical Observations on the Diseases of the Lower Intestines, &c.

LONDON:

PRINTED BY J. C. BRIDGEWATER, SOUTH MOLTON STREET, OXFORD STREET.

TO

THE PRESIDENT,

COUNCIL, AND MEMBERS,

OF THE

ROYAL COLLEGE OF SURGEONS;

TO THE

PRESIDENT AND COUNCIL

OF THE

ROYAL ACADEMY OF ARTS;

AND TO

ALL THE FRIENDS AND PATRONS

OF THE

SCIENCES AND ARTS;

THE FOLLOWING PAGES ARE RESPECTFULLY DEDICATED

BY THE AUTHOR.

21, *Saville Row,*
January, 30th, 1833.

THE

HUNTERIAN ORATION

FOR

1833.

Mr. President and Gentlemen,

To trace the path, and review the progress of science, in any of its departments, is an occupation of time, and attention, no less useful than agreeable. And surely no retrospective glance can convey more satisfaction to a benevolent mind, than that which regards the rise and progress of Surgery; a study the sole object of which is to diminish the sufferings, and consequently increase the happiness of mankind.

In the most remote ages of antiquity, those who applied themselves to the acquisition of knowledge in Medicine, were held in high respect, and veneration; and we cannot reasonably suppose that the earliest periods of Egyptian intelligence were less distinguished, by attention to the study of Medicine, and Surgery, than by devotion to the other

sciences. And when we recollect that several of the most ancient cities of Arabia, were devoted, perhaps exclusively to the general purposes of high literary attainment, and the cultivation of a refined taste, as well as to the prosecution of particular pursuits; it can scarcely be doubted, that a subject of research so essentially conducive to the comfort of mankind, as Medicine, must have been diligently attended to.

With the early state of Arabia we are tolerably well acquainted. An accomplished Oriental scholar, the late amiable Dr. MASON GOOD has informed us, that Teman was one of the chief cities of Idumæa; celebrated for its philosophy, and distinguished for its learning. And that Surgery, as one branch of science, was even in those days studied, and practised, agreeably to certain principles, is proved by the testimony of Baron LARREY; who states that "the circumstance "of Gen. DESAIX having pursued the enemy, in upper Egypt, "beyond the cataracts, afforded every facility to the Com- "mission of Arts, for visiting the monuments of the far famed "Thebes, and the renowned temples of Tentyra, Carnak, "and Luxor, of which (he adds) even the present ruins de- "monstrate the ancient magnificence. On the ceilings and in- "terior walls of these temples, may still be seen the bas-reliefs, "representing limbs amputated, with the instruments used, "very similar to those selected for the same purpose, in the "present day. These instruments are again recognized in "combination with the hieroglyphics: together with the traces "of other operations, proving that Surgery in those remote

" times, marched on with the other arts, which appear to have " been carried forward, to a very high degree of perfection."*

HIPPOCRATES, the mighty father of Medicine, whose name has now obtained the veneration of more than twenty centuries, was the first who emancipated this study from the trammels of superstition, and the delusions of philosophy. His capacious mind, and penetrating judgment, clearly discerned, and successfully laboured to remove, the obstacles which the bigotry and superstition of the vulgar, the impudence and vain pretences of the quacks, and the pride and vanity of the sophists, opposed to its improvement.

The æra of HIPPOCRATES, was soon succeeded by that which gave birth to Alexandria. A city founded by the warlike son of PHILIP; on a spot selected for its favorable, and centrical situation: presenting a spacious harbour, with every facility for conveying the costly merchandise of the East, to the luxurious inhabitants of the West.

In tracing forward the thread of history, it is curious to observe, that occasionally events of the highest importance appear to have been brought about by circumstances, the most trifling. To reflect, for instance, that the introduction of an image of SERAPIS into the city of Alexandria, leading, as it did, to the subsequent erection of the magnificent temple of the Serapeum, should have also led to the foundation of the most valuable Library, which perhaps ever existed. Commenced by the first PTOLEMY, within the verge of the

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* Chirurgie Militaire.

temple; this Library was devoted to the use of the Academy, instituted by the same Monarch.

Some idea of the extent of this Library may be formed, from its having, at one period, contained upwards of 700,000 volumes; and one of the best proofs of the value of the collection, may be obtained by calling to remembrance the peculiar manner in which it was made.

Most of my present auditors are aware, that the method followed in collecting the books for this particular Library, was, to seize indiscriminately all that were brought into Egypt, either by the Greeks or other foreigners. Each book or manuscript, thus obtained, was carefully transcribed, in the Museum, by persons specially appointed for that purpose. The copy when finished was very liberally handed over to the proprietor of the book, and the original laid up in the Library.

This usage, Gentlemen, although some may no doubt be disposed to consider it "a custom more honored in the breach than the observance," was still eventually, perhaps, productive of good. The value, and therefore the interest, of the collection, must have been exceedingly augmented, by thus, heaping together, so vast a multitude of original works. The spirited cultivation of the liberal arts, no less than the diligent prosecution of scientific researches, would be encouraged, and promoted;—and what was the result?—that in this city, the successors of ALEXANDER first resolutely opposed the natural feelings and prejudices of mankind, by patronizing the dissection of human bodies. Alexandria,

being made the great deposit of literary knowledge by its immense Library; was also rendered the prolific source of every kind of instruction, the most favored seat of science.

The expediency of any attempt to accomplish so great a purpose, will be readily admitted, if we call to mind the state of things, just previous to the æra of this foundation. If we recollect what was the state of learning and of learned men. That a student, interested in any subject of natural philosophy, or abstract science, could become acquainted with the knowledge possessed by others, only by making long journies, and paying very distant visits, to obtain the perusal of works of celebrity, or the conversation of those engaged in similar pursuits, with himself.

We see, for example, that HERODOTUS, sparing no pains in collecting the best materials for writing his history, travelled into Egypt, saw all the principal cities, and conversed much with the priests of that country; visited the several parts of Greece; went to Babylon, and Tyre; and was in Thrace, Scythia, Palestine, and Arabia. Yet, you know, Gentlemen, that all this activity in preparing, and all his subsequent labour in composing, his work, left him eventually no other mode of making known the value of his performance than that of reading or reciting his history, in the public assembly of the people, at the celebration of the Olympic Games.

About this time, the practical study of Medicine appears to have been divided into three branches; Diet, Chirurgical Medicine, and Pharmacy: and from this period, therefore,

may be dated the origin of the three several departments of the profession.

The exact extent, or the precise course of Medical study, recommended or required in the school of Alexandria, we have now no means of determining. It is, however, sufficiently evident that it soon gave a new impulse to enquiry, an increased desire for information. The spirit with which opinions were formed, and the earnest anxiety displayed in maintaining them, were sufficiently manifested in the conduct of SERAPION, the founder of the Empiric Sect; a sect that was well supported by talent, and long continued to flourish. While those who took up the opposite side of the question, formed a second, the Dogmatic or rational sect. The first, admitting only one general method of acquiring skill in the Medical art, that of experience, a knowledge derived from the evidence of sense; the second, asserting the necessity for knowing the latent, as well as evident causes of disease, and contending that a physician ought to understand the natural actions and functions of the human body, which necessarily pre-supposes an acquaintance with the internal parts.

A third sect, the Methodic, was founded by THEMISON, the disciple of ASCLEPIADES; who maintained, that the examination of the causes of complaints, recommended by the Dogmatics, was useless, and the laborious observations of the Empirics, unnecessary; for that the whole art of Medicine might be taught in a few months. He considered that all

Diseases admit of being divided into two kinds; those arising from Stricture, and those induced by Relaxation. A division, much resembling in simplicity, the modern distinctions, into Sthenic and Asthenic.

The Methodic Sect had one advocate, who was said to have brought its doctrines very nearly to perfection: and this was THESSALUS, who certainly appears to have been a man inclined to think, and disposed to speak, rather freely. He is accused by GALEN and PLINY, of excessive vanity, and insolence; and it is asserted that he was in the habit of expressing the utmost contempt for the opinions of others. In fact, his vanity was so unbounded, that he gave himself the ridiculous title of "the Conqueror of Physicians;" and even carried his conceit so far, as to cause this absurd title to be engraved upon his tomb, in the Appian way.

We may therefore Gentlemen, venture to assume, that the organ of self-approbation, was occasionally, even in those days, susceptible of a very sufficient degree of development.

One of the most celebrated medical writers of antiquity, was CELSUS. In his works we have a compendious, yet comprehensive view, of the practice of almost all his predecessors.

In the second century of the Christian æra lived Claudius GALEN. A physician who displayed his judgment, very early in life, by selecting what appeared most rational, from the different sects, in philosophy; but particularly (as it seems to me) by totally rejecting the Epicurean system, which

was then in fashion. During his youth, he travelled much, and was resident for several years at Alexandria; at that time the great resort of men of science, and the best school of Medicine in the world.

Gentlemen, you cannot doubt that the study of Medicine was greatly favored by the various and extensive opportunities of information which the school of Alexandria afforded.—But the hour was now approaching, in which not only that great city, but the whole of the civilized portion of the globe, was to be shaken to its foundation, by a storm, the gathering clouds of which, were destined to overshadow the land, for many succeeding ages.

We see the mighty Roman empire, formerly including almost the wide expanse of the known world; now weakened by divisions, surrounded by enemies. On the East, the Persians; on the North, the Scythians, Sarmatians, Goths, and a host of other barbarians, sought every occasion to break into it.

The shocking extent of devastation attending these inroads, was incredible; the Almighty appeared to have entrusted to them the destinies of the globe, and they used them to destroy.

The Western world, from the height of grandeur, was sunk to the lowest slavery; the provinces, now inhabited by human beings, scarce a degree above brutes; every science, every art, lost; even the savage conquerors themselves starving, for want of a sufficient knowledge of agriculture. The

Eastern empire might however, still be said to live; although fast declining into ruin, and destruction.

In the early part of the seventh century, the inhabitants of Arabia, from their earliest origin, accustomed to war, and plunder, now under the artful MAHOMET, united by the most violent and most absurd superstition, blended with the most enthusiastic desire of conquest; were like a flood pent up, ready to overwhelm the rest of the world.

In no part, or quarter of the globe, was there a power capable of opposing the furious progress of the Arabs. With a celerity that was amazing, they overran Syria, Palestine, Persia, and India; extending their ravages, beyond even the conquests of ALEXANDER.

From the universal devastation, it was not to be expected that Alexandria could escape. It fell; after a long siege and the loss of 23,000 men. Upon which memorable occasion an anxiety to save the great literary treasure, urged the grammarian JOHN, probably to that very step, which precipitated its destruction. The intimate friend of the General AMROU, begged that he would bestow on him the Royal Library. The request of the philosopher was transmitted to the Caliph, OMAR. The ignorant tyrant replied, that if the books in question, contained the same doctrines with the Koran, they could be of no use; but that if they contained any thing contrary to the Koran, they ought not to be suffered to exist; and therefore, that whatever their contents might be, they

should be destroyed. This order was executed, yet such was the magnitude of this splendid Library, that its numerous volumes, distributed among some hundreds of public baths, are said to have supplied their daily fires, for no less a space of time than six months.

But, notwithstanding these, and other subsequent events, all tending to the total extinction of the light of science, and philosophy, some faint and scattered rays might still be perceived, to sustain the agreeable anticipation of a returning dawn. Although Rome, once the seat of imperial power, had for ages continued to decline; the eye of attention might observe, that while by repeated shocks from without, it lost its political consequence, it insensibly acquired a still increasing force within; a still increasing weight of ecclesiastical importance. Religious establishments, of all descriptions, especially monastic institutions, sprung up in almost infinite abundance; not confined to the narrow limits of Italy, but extending their broad foundations to the most remote provinces of the empire.

In these institutions, it must be confessed that letters were cultivated, though licentiousness was also encouraged. In these societies, it may to a certain extent be admitted, that the arts and even sciences still survived; here the scattered remains of Grecian and Roman writers on Medicine, were chiefly preserved, and their languages studied and spoken.

We see then, Gentlemen, that while the great mass of society was illiterate, the secluded inmates of the monasteries,

having the opportunity of reading and studying Medical authors, were induced from various motives, to give Medical advice. But as it was inconsistent with the rules of their order, to shed blood, or dress a wound, these offices, under their direction, were performed by their servants. "It was here therefore," (to quote the words of a late eloquent professor,) "that Surgery first made its public appearance, clothed in the garb of a menial."*

Anatomy, as a study, may be said to have been entirely neglected by the Arabians. MONDINI, in the 14th century, appears to have led the way to its revival, in Italy, by instituting public dissections; and it has been correctly observed, that the zeal and spirit with which the great painters, who flourished in the 15th century, studied their profession; and the distinguished patronage afforded them, contributed in a very powerful degree, to the suppression of the public prejudice against dissection.

The inimitable works of Michael ANGELO, might well persuade mankind to believe, that whatever rule he laid down as a principle, must be worthy of adoption. Were these works now before us, Gentlemen, we might be led to ask,—in what way this distinguished painter studied his art?—The answer is, by diligently applying himself, in the first place, to the study of Anatomy; and should we feel curious to enquire by what means he could have been enabled to leave behind

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* Mr. Abernethy.

him memorials, at once so fair, and so unfading, we may draw aside the curtain, a little further; observe his unwearied industry, and close application, bearing in mind, what some persons, will perhaps scarcely credit, that he was in the constant habit of previously modelling, in clay or in wax, all the subjects and figures which he intended to paint.

Neither does the name of Michael ANGELO stand alone in the brilliancy of his attainments, or in the diligent use of the means by which they were acquired. Leonardo DA VINCI, RAPHAEL, and many others, of scarcely less note, are known to have been either frequent dissectors themselves, or diligent students from the dissections of others.

We now see, Gentlemen, the importance of Anatomy, in the study of painting; but the relation is reciprocal. Anatomy can scarcely stand alone, better than painting. And when we recollect the intricacy of this study, the great difficulty of acquiring clear impressions of the relative situation, and form, of parts; and especially, how desirable it frequently is, to preserve the exact appearance of morbid parts; we cannot remain insensible, that as a knowledge of Anatomy is necessary in painting, a knowledge of the principles of Drawing is scarcely less important, in the successful prosecution of that extensive course of study, which through Anatomy, forms eventually, the accomplished surgeon.

If, then, we reflect seriously on these matters, not being unmindful of the dignity, or the difficulty of that profession, we not only practice, but anxiously labour to improve, we

shall cordially join in the benevolent desire expressed by an individual, no less distinguished by his celebrity as an artist, than by the high, and honorable charge of presiding over the arts ;*—that as the Royal Academy of Painting has its Professor of Anatomy, we may one day see the Royal College of Surgeons, have also, its Professor of Design.

Gentlemen, so long as the cultivation of Anatomy, languishes, that of Surgery will scarcely be advanced. It is when we see men of superior, and well constituted minds, zealously apply themselves to the improvement of their profession, by the diligent study of nature, as displayed in the living movements of the animal machine; it is then, that we may anticipate the best results, the greatest discoveries.

Such a man, was the illustrious Dr. William HARVEY; whose keen discernment first determined the exact office of the heart, and demonstrated the circulation of the blood. A gentleman, whose private manners, no less than his public conduct, bore testimony that a serious mind is indeed the native soil of every virtue. Dr. HARVEY's disposition was essentially reflective, and thoughtful. That his researches into the most recondite paths of physiology were profound and successful, is demonstrated by his discovery of the circulation, no less than by his elaborate and invaluable treatise on generation. And the clearest evidence that his intellectual endowments were not only of the first, but the best quality,

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* Sir M. A. Shee, P.R.A.

may be afforded by the selection of a single passage from his writings; in which "he proposes to explain (in reference to the incubated egg) what (he says) is constituted first, and what last, in a most miraculous order, and with a most inimitable prudence and wisdom; by the great God of nature."

Elevated by the contemplation of these things, Gentlemen, well might an inspired monarch exclaim "I will praise Thee; for I am fearfully and wonderfully made; marvellous are Thy works, and that my soul knoweth right well."

Gentlemen, that which Dr. HARVEY accomplished for Anatomy and Physiology, was achieved by Serjeant WISEMAN in favor of Surgery; by an improvement no less extensive than important; the result of strong natural abilities, urged forward by the most determined industry.

The genius of HARVEY was seen to most advantage, when employed in unveiling the minute and mysterious operations of health; the patient and laborious observation of WISEMAN being still engaged in adding some new fact, in the treatment of disease. The one was led on, by his singularly acute perception of the admirable wisdom displayed in the system of nature; the other appears to have been at once excited, and satisfied, by reflecting that the direct tendency of all his labours was, to abridge the duration, or mitigate the severity of "the thousand ills that flesh is heir to."

WISEMAN, it is true, did not adopt with sufficient decision, the grand improvement in Surgery, introduced by his active

and intelligent predecessor, AMBROSE PARÉ; in the use of the ligature, instead of the cautery, after amputation. This defect, however, was probably owing to a deficient knowledge in Anatomy. The prejudice against dissection in this country, was at that period much greater, than in France. So great indeed, was the difficulty, that the obtaining any adequate extent of knowledge in Anatomy, was impracticable; and this almost insuperable bar to the cultivation of Anatomy, has continued to impede its progress, even down to the present time.

Happily, Gentlemen, for surgery, for science, and for society, a brighter day, at length, has dawned. The able, and spirited remonstrances of those distinguished members of our profession, who having borne the heat and burthen of their day, now sleep with their fathers: the rapid increase of information, and the active cultivation of intellect; have at length conduced to determine, that a study of such pre-eminent importance as Anatomy, shall be no longer held illegal; but that, on the contrary, every legal protection, and facility, shall henceforth be afforded, for the acquisition of that knowledge from the dead, which is so essential to the health, and safety, of the living.

The 18th century includes within its circle, many celebrated men, and two most distinguished Physioligists, HALLER, and HUNTER; the former born in 1708, the latter just twenty years afterward. The one a classically educated, and elegantly accomplished physician; the other, the simple

and artless child of nature, little assisted by education, but indebted exclusively to the unparalleled strength, and high superiority of his mental endowments, for a celebrity as a surgeon, which during his life was unequalled, and since his death has remained without a rival.

Albert Von Haller was the youngest of five sons. Even in childhood he evinced so strong a genius for literature, that at nine years of age he translated Greek, and was commencing the study of Hebrew. The rapidity of his early progress, however, may perhaps, be attributable to his father's having taken into his house, a private tutor; whose discipline appears to have been both active, and impressive; for the accidental sight of him, at any subsequent period of life, never failed to excite in Haller very great uneasiness, renewing all his former terrors.

At eighteen, the reputation of the celebrated Boerhaave drew him to Leyden; where Ruysh still lived, and Albinus was rising into fame. Here he studied with intense application; taking down the Lectures of Boerhaave assiduously (he says) for three successive seasons. After this, he first visited London, and then Paris. Here, however, his zeal in prosecuting his Anatomical studies, had like to have involved him in difficulty; and to avoid the chance of being dissected himself, he cut short his researches, by a precipitate retreat.

It is to be regretted, that when with all these advantages, he returned, at the age of twenty-six, to Berne, in Switzer-

land, the place of his nativity; the interest made by those who had remained comparatively idle, at home, outweighed the influence of all his activity, and acquirements abroad; leaving him an unsuccessful candidate, not only for the office of physician to an hospital, but also for a professorship. The memorial of this unmerited neglect, was however, fortunately soon set aside, by his nomination to a Professorship in the University of Gottingen, by His Majesty George the Second. An appointment, the duties of which he continued to discharge, with honor to himself, and advantage to others, for a period of seventeen years.

Baron HALLER, made Physiology his most essential study. Well aware of the necessity for obtaining a perfect knowledge of Anatomy, both human and comparative; he perceived that any reasoning upon function, incompatible with structure, must be fallacious.

Independent of many other works, of less note, HALLER published the Academick Lectures of BOERHAAVE, enriched by his own copious, and comprehensive selection of notes, in which may be traced the vast extent of his reading, and the endless diversity of his experimental enquiries; exhibiting in miniature, the outlines of his latest and most extensive work, the Elementa Physiologiæ.

We may now, Gentlemen, turn our attention to the more immediate object of this Meeting, by again reverting to the name of Mr. HUNTER; a name that appears to me to associate with it the idea of nearly all that is perfect in the

philosophy of our profession; a name that recals to recollection much that is amiable, and much that is independent in character, and much therefore, that is worthy of our regard, and imitation. The name of one, whose lofty and restless genius, soaring high above the opinions and errors of others, was early and late occupied in laying a foundation, strong as it was extensive, whereon might subsequently rise the temple of his future fame.

Mr. HUNTER, like Baron HALLER, was a zealous student of Physiology; but although no man, perhaps, ever employed his reasoning powers with better effect, in this study, than Mr. HUNTER, he nevertheless felt the great difficulties with which the subject was surrounded, so forcibly, that he was induced to determine, that in what he might live to perform, there should, at least, be nothing liable to mistake, or misapprehension; but that the various functions, not only of animal, but vegetable life, should be explained and illustrated, by a ready reference to each individual variety of structure, by which those functions were performed.

With this view, he commenced, and almost completed, a scheme of laborious investigation, which, including as it did, the entire circle of the animated creation, was an undertaking of such extent, as had, probably, never before entered into the mind of man to attempt.

Gentlemen, if our time permitted, you would feel interested, in calling to mind, the various traits in the character of this distinguished and excellent man. Numerous anecdotes might

be related illustrative of the habitual generosity, and liberality of his feelings; no less than the lofty and original cast of his genius, labouring to the last, more fully to unfold, the multiplied and admirable contrivances of Omniscient wisdom, in adapting so many diversities of structure to the accomplishment of one and the same purpose; as may frequently be traced in coursing the wide field of animated nature.

We may, however, venture to devote a few moments to the purpose of taking a transient glance at the interior of the Hunterian Museum; for although many gentlemen now present, have, I am aware, already contemplated, in detail, its various contents, it seems to me not unsuitable to the present occasion to state the leading principle of its arrangement, as demonstrative of the extent of the scheme, and purpose, of its founder.

In this collection (says one of Mr. HUNTER's biographers*) we find an attempt to expose to view the gradations of nature, from the simplest state in which life exists, up to the most perfect, and most complex animal, man.

The First Class of preparations, exhibits the sap of vegetables, and the blood of animals; fluids from which all the different parts of the vegetable and animal creation are formed, supported, and increased. The moving powers of animals, muscle, elastic ligament; the bones and joints, conclude this series.

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* Sir Everard Home.

The Second Class, commences with the simplest form of animal, the hydatid, receiving like the vegetable, its nourishment by absorption from the surface. Next follows the simple bag, or stomach, with one opening or outlet; as in the polypus. Then comes the leech, to which a nervous system, and generative organs, are superadded; and thence the series passes upward, to those examples in which the stomach forms only a distinct part of the animal, for the purpose of digestion. The simple membranous stomach; those with the addition of crops, and other bags, to prepare the food, as in the ruminant tribe; and lastly, those with gizzards. Annexed to these, follow the extensive series of teeth; adapted to the kind of food, and form of stomach.

After the Stomachs, we have the numerous diversities in the disposition of the intestinal canal; principally with a view either to complete the process of digestion, or to increase the extent of surface for absorption.

The absorbent system itself, is next displayed; commencing as in plants, and passing upwards, through the various orders of animals.

We next pass forward, to the circulation; one of the simplest forms of which is presented in the caterpillar; a simple canal, or artery, admitting an undulatory motion of the blood. From this simple structure, the provisions become, in different animals, by small additions, more and more complex, until they attain the perfection displayed in the construction of the human heart.

The respiratory organs follow next in order; and are demonstrated, from the fine vascular membrane lining the shell of the egg, up to the lungs, in the various orders to the more perfect animals.

The Third Class, which comprehends the brain and nervous system, occupies a very extensive series; proceeding on, from the simple nerve of the leech, to the delicate nervous circle of the snail, and thence through the insects, fishes, birds, and quadrupeds, up to man. The organs of sense, as appendages to this series, are also beautifully illustrated from every department of nature.

The consideration of the external textures, and the various coverings of animals, form the contents of the fourth and last class; including also all that regards generation; and this latter subject extends its view from the polypus, that possesses this power diffused over its whole substance, through those specimens, in plants, and animals, where the organs are hermaphrodite, up to the most perfect varieties, of a distinction in sex.

It would be presumption, to call that a sketch, which must be perceived to be only a very partial, and imperfect outline; excluding, or at least omitting, all the entire animals that are in the Museum, all the skeletons of animals, the collection of fossil remains; and the extensive pathological series; either of which collections alone, would almost furnish a museum.

Gentlemen, the transition is natural, and easy, from Mr.

HUNTER, to Mr. HUNTER'S commentator; and if you ask yourselves, Who was his most eloquent, most ingenious, and at the same time most faithful commentator? it will not be necessary that I should reply,—the late Mr. ABERNETHY. A gentleman, to whom Surgery is indebted, for many important improvements. A gentleman, whose modes of thinking had possibly received, in early life, some bias from those of his great predecessor; for like Mr. HUNTER, we find that he very often occupied himself in distributing, rather than collecting, the fruits of his professional labours.

That Mr. ABERNETHY had a manner of his own, with no small degree of occasional eccentricity, cannot be denied; but he seldom, I believe, indulged his humour, at the expence of his discernment; neither did he ever fail to perceive, and to avail himself of, any seasonable opportunity for the exercise of his benevolence.

Those gentlemen who had the happiness of being most intimately acquainted with Mr. ABERNETHY, will be the best qualified to determine, that in the tribute now paid, I have only ventured to express an opinion, the correctness of which their own sentiments will confirm; and to those gentlemen, particularly, it must afford the highest pleasure, to see so lively a memorial, as that now before them; called into existence, as it has been, by one, who enjoys the enviable, and comparatively the exclusive privilege of conferring perpetuity, and truth, upon the unstable characters of perishing mortality.*

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* F. Chantrey, Esq. R.A.

Since our last meeting, Mr. President, the profession has suffered a loss, in the death of Sir EVERARD HOME; a very expert operator, a zealous comparative Anatomist; and a gentleman to whose liberality, (conjointly with the late Dr. BAILLIE) the College is indebted for the Institution of the present Commemoration.

One duty yet remains; it is that of giving expression to a regret, in which every member of this College, and every student, and friend of philosophy, in every country, will participate; when reminded of the heavy loss that science has recently sustained, in the late Baron CUVIER. The ornament of France;—the admiration of Europe; and the envy of the civilized world.

The genius and the labours of this justly celebrated man, will indeed perpetuate his name. The distinguished Geologist, WERNER, it is true, preceded him, in his most peculiar line of research; but CUVIER impressed it with the dignified character of philosophy. WERNER, it must be admitted, contemplated, and collected, various, and resplendent masses, of materials; but it was CUVIER who undertook and accomplished the task of arranging these, and others of his own selection, and discovery; so combining the whole, as eventually to erect a monument, no less sacred to the memory of its illustrious founder, than to the future purposes and pursuits of true philosophy.

Thus, Gentlemen, in conclusion, have I endeavoured to fulfil (although I fear very inadequately) the duty with which I have been entrusted.

We have taken a transient and cursory view of various circumstances, by which the advancement of Anatomy, and Surgery, have, at different periods, been either prevented or promoted; noticing, as we passed, certain individuals, and most particularly Mr. HUNTER; to whom the profession of Surgery is especially indebted, for its scientific character, and for the distinguished position in which it now stands, in the estimation of society. In doing which, I may, perhaps, venture to hope, that those gentlemen who have most largely contributed to uphold the dignity, and extend the improvement of Surgery, may not have seen much to disapprove; and that the junior members may have had an opportunity of perceiving, that although good talents, and a natural as well as cultivated taste for the profession, are necessary to their success; a steady and persevering industry, with a determination to emulate the virtues of their predecessors, are no less indispensable; constituting, as they do, the only sure path to happiness; the only safe road to honorable distinction.

FINIS.