The Hunterian oration, delivered before the Royal College of Surgeons in London, on the fourteenth day of February, 1821 / By Thomas Chevalier.

THE

HUNTERIAN ORATION.

1821.

THE

HUNTERIAN ORATION,

DELIVERED BEFORE

The Royal College of Surgeons

IN LONDON,

ON THE FOURTEENTH DAY OF FEBRUARY, 1821,

BY THOMAS CHEVALIER, F.R.S. F.S.A. & F.L.S.

SURGEON EXTRAORDINARY TO THE KING.

PUBLISHED AT THE REQUEST OF THE COURT OF ASSISTANTS,

AND

DEDICATED, BY PERMISSION,

TO HIS MAJESTY.

HOC DEBEMUS VIRTUTIBUS, UT NON PRÆSENTES SOLUM ILLAS, SED ETIAM ABLATAS E CONSPECTU, COLAMUS.

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PRINTED BY J. BARFIELD, WARDOUR-STREET,
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BAGSTER, PATERNOSTER-ROW; HATCHARD AND SON, PICCADILLY;
CALLOW, GERRARD-STREET; AND COX, ST. THOMAS'S-STREET.

1821.

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DELIVERED BEFORE

THE ROYAL COLLEGE OF SURGEONS

IN LONDON,

ON THE FOURTEENTH DAY OF FEBRUARY, 1821,

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1821.

(COPY)

"At a Quarterly Court of Assistants of The Royal College of Surgeons of London, holden on Friday, the 13th Day of April, 1821,

RESOLVED UNANIMOUSLY,

That Mr. CHEVALIER be requested to publish THE HUNTERIAN ORATION, delivered by him on the 14th Day of February last."

TO THE KING.

SIRE,

WHILE the energy of YOUR MAJESTY'S Councils, and the valour of YOUR Forces, were engaged in rescuing Europe from tyranny and oppression, YOUR solicitude for the prosperity of YOUR people led YOUR MAJESTY also to watch over those institutions, which direct the minds of men to pursuits, in which nations and individuals can emulate each other, without jealousy or discord.

Among these Institutions The Royal College of Surgeons was honoured by YOUR MAJESTY'S notice; and YOUR MAJESTY was pleased personally to examine the Museum entrusted to their care, which exhibits a lasting Monument of the genius and industry of JOHN HUNTER.

In most graciously accepting the Dedication of this Address, YOUR MAJESTY has also been pleased to encourage an humble, but sincere attempt, to pay a just tribute of respect to the memory of that eminent philosopher; and to the Science, which from his labours, received illustration and improvement beyond all former example.

That YOUR MAJESTY may be long continued on a Throne, to the stability of which, Liberty and Law, Religion and Science, alike look with confidence for protection, is the earnest wish and prayer of,

SIRE,

YOUR MAJESTY'S most loyal and dutiful

Subject and Servant,

THOMAS CHEVALIER.

South Audley-Street,
MAY 1, 1821.

THE

HUNTERIAN ORATION,

1821.

GENTLEMEN,

IN continuation of a wise and liberal Institution which has been happily established in this College, we are again assembled on the anniversary of the birth of JOHN HUNTER, to perform the pleasing duty of acknowledging the merits of those persons, by whose labours and discoveries Surgery has been brought to its present state of improvement; and especially to set before

our members the singular and edifying example of that great Physiologist and Surgeon, by whose pre-eminent and well directed talent, and persevering industry, Chirurgical Science was more essentially advanced, than it had been by any other individual.

And here it may be observed, that the memorial of persons eminent for their talents, and meritorious for their successful and useful application of them, has ever been a conspicuous feature in civilized society. In the short account which is left us of the Antediluvian World, Jabel, the father of pasturage, Jubal, the father of instrumental music, and Tubal-Cain, the father of metallurgy, are distinguished as the first, or principal cultivators, of

those arts, by which the more immediate wants of mankind were to be supplied, their finest emotions excited and cherished, and their dominion over the productions of the globe extended and perfected. * And after the greater part of the human race and their works, had been involved in one tremendous scene of general destruction, when society again revived, wherever states were formed, and intellectual man was distinguished from the predatory and the savage, the same disposition to record whatever was eminently great, becomes apparent. The arts of painting and sculpture, the pens of the historian and the poet, inscriptions en-

* Genesis iv. 20—22.

graved on the most imperishable materials, festal celebrations, groves, and expensive buildings, have all been employed to perpetuate the remembrance of illustrious persons, who had rendered signal services to their respective countries, or to the general interests of mankind. Among these testimonials of distinguished honour to celebrated individuals, may be named the temples which were dedicated to Æsculapius; and especially that magnificent edifice near Epidaurus, in which a statue of that physician, composed of ivory and gold, was placed on a splendid throne of the same materials.

But of all the methods which have been devised for rendering honour to

those who have eminently contributed to the advancement of learning and the sciences, no one is more appropriate, unexceptionable, or beneficial, than institutions like that which now brings us together, by which stated seasons are appointed for the express purpose of publicly allotting to them that share in the remembrance and gratitude of posterity to which they are entitled. By thus holding up their examples for imitation, others are naturally excited to follow their steps, to add new treasures to the stores they have collected, and to aspire to a like place in the estimation of future generations. On these occasions also, we have a gratifying opportunity of recalling to mind those, by

whose instruction and guidance our early steps were directed; of reviewing the progress, the importance, and the obligations of our profession; and of reviving and cultivating that knowledge of each other, which, by inspiring mutual respect and confidence, may keep up a frank and liberal intercourse between us, and make each esteem the talents, the attainments, and the just reputation of every individual, as combining to constitute a common fund of good, which extends its benefits to all.

Such were the generous sentiments which induced the Executors of Mr. John Hunter to found this Annual Commemoration of their illustrious relative; and such, I trust, are the impressions, under

which this feeble attempt will be made to correspond with their intentions.

It has generally been affirmed, that Surgery was the most ancient branch of the healing art. If this assumption be just, it can only apply to the more simple and obvious parts of it; such as closing and dressing wounds, reducing luxations, binding up fractures, and employing such remedies as were found capable of diminishing the pain, soreness, heat, swelling and rigidity of parts. It does not appear that the idea of *wounding*, in order to heal, was entertained very early. The practice of medicine being first cultivated in Egypt, the nature of the climate would have held out

no favourable promise to such an attempt, had it been thought of. Cuttings of various sorts, were indeed practised by some nations, as religious, or superstitious rites; but it is exceedingly doubtful if the knife were purposely employed as a remedy, before the time of Æsculapius. Of this distinguished personage, it is said by Pindar, in his third Pythian Ode, that "he cured those who were affected with ulcers of spontaneous origin; those who were wounded by the polished brass, or the far-thrown stone; and those who suffered by the summer's heat, or the winter's cold; curing some by incantations, and others by medicines; restoring some to health, or straitness, by remedies bound round the diseased members, and

others by INCISIONS."* The latter feature in his practice was probably the most

* Τους μεν ων, οσσοι μολον, αυτοφυτων
ελκεων ξυναονες, η πολιω
χαλκω μελη τετρωμενοι,
η χερμαδι τηλεβολω,
η θερινω πυρι περ-
θομενοι δεμας, η
χειμωνι: λυσαις αλλον αλ-
λοιων αχεων
εξαγεν: τους μεν μαλακαις
επαοιδαις αμφεπων,
τους δε προσανεα πι-
νοντας, η γνιοις περαπτων παντοθεν
φαρμακα, τους δε ΤΟΜΑΙΣ, εσασεν ορθους.

Eos igitur, quotquot accesserunt, sponte-enatorum
Ulcerum participes, aut fulgido
Ære membra vulnerati,
Aut saxo eminus-jacto,
Aut æstivo calore depo-
pulati corpus, aut
Frigore-hyberno: liberans alium ex ali-
is doloribus
Eduxit: alios quidem mollibus
Incantationibus curans,
Alios vero convenientia bi-
bentes, aut membris circum applicans undique
Pharmaca, aliis vero SECTIONIBUS, restituit sanos.†

Schmid.

† Stare fecit rectos.

Porti.

novel and distinguishing, and will account for its being affirmed by Diodorus,* that he was the inventor of Surgery. His son Podalirius is the first person on record, who purposely performed Venæsection; and Homer speaks of the importance of Machaon in the Grecian army before Troy, on account of his skill in the excision of darts. The boldness evinced by first and successfully employing the knife, probably contributed much to extend the fame of Æsculapius, and to confirm that confidence, first in himself, and his children who were instructed by him, and afterward in their descendants, which secured to them the large

* Diod. Sicul. L. v. C. 74.

share of practice they enjoyed for so many ages in Greece.

From the writings of Hippocrates we find, that operative Surgery had, by his time, made considerable progress; and it is also evident, from that clause in his oath, by which he abjured cutting for the stone; not only that such an operation was then performed, but also that there were Surgeons employed for this, and probably, for other similar purposes, even in Greece, who were distinct from the physicians of his family. Pythagoras had employed his pupils in the dissection of animals; and Alcmæon, of Croton, who was one of them, is recorded as the first who ventured to amputate a limb

in order to preserve the life of the patient.

Greece long continued to possess the principal schools of medical and chirurgical knowledge, as well as of philosophy and eloquence; nor did she entirely lose this advantage, till after the growing pride and power of her ambitious and overbearing rival, had finally subdued this princess among the nations, and reduced her to the humiliated condition of a Roman province.

Prior to that epoch, Ptolemy Soter had founded the school and library at Alexandria, and had allowed and encouraged the dissection of human bodies: Erasistratus and Herophilus made many discoveries in anatomy, and thus con-

tributed greatly to raise that establishment to the eminence it afterward attained, and long preserved, as the principal seminary for students in all the branches of learning, and especially in medicine and Surgery. To this city, therefore, students from all parts resorted; Rome continuing, in this respect at least, an unenvying witness of its prosperity, both before and after Egypt had fallen under her power.

For that thirst after universal empire, which the demolition of Carthage, and the conquest of Greece, only served to inflame, and that contempt of suffering and death, with which the constant pursuit of that object was connected, and which a false and sullen philosophy in-

culcated and extolled as a chief perfection of human nature, were but little favourable to the advancement of Surgery in Rome. It was not till the time of Julius Cæsar that its professors there emerged above a state of servile degradation. Many Surgeons of merit must, however, have flourished; and there were some whom Celsus has called *non mediocres professores*, by whom various improvements in practice were introduced. But in the time of Celsus, as for a long period afterward, Surgery could boast of nothing beyond an empirical character: nor, except what is to be found in the work which he himself composed, do the records of that wonderful state furnish

any thing relating to it, on which we can dwell with satisfaction.

Yet, had it been possible for the lust of dominion to know any bounds, or for the fever and delirium of ambition to be allayed by victories and possessions, Rome might have employed the balm of science to alleviate the miseries of subjugation, and thus becoming the benefactress, as well as the empress of the world, might have confirmed that dominion which her arms had obtained. Rich with the spoils, and mistress of the erudition of the most learned nation in the world, had it been an adequate part of her policy to cultivate and diffuse those branches of knowledge which dilute the fiercer passions, and which unite nation

to nation, and man to man, by the sense of mutual rights and duties, and by the communication of reciprocal benefits; the internal harmony and strength of her empire, might have kept a nearer proportion to the extent of her sway; and we might have had to look into her annals, for progressive improvements in the art of healing, as well as for terrible displays of the art of destroying. But, always pursuing domination by power as her primary object, and making the art of war almost the only path to civil honour,* she neglected the moral cement

* Montesquieu remarks, " Les Citoyens Romains regardoient " la commerce et les arts comme des occupations d'esclaves; ils " ne les exercoient point. S'il y eut quelques exceptions, ce ne " fut que de la part de quelques affranchis qui continuoient " leur premiere industrie. Mais, en general, ils ne connoissoient

of true political greatness; in the expressive language of a prophetic emblem,* her feet were "part of iron, and part of clay;" the advantages she possessed became, in a great degree, lost to herself and to mankind; and hence, to borrow the figure of an eminent historian and statesman,† "When she had rooted up, or cut down, all that kept

"que l'art de la guerre, qui etoit la seule voie pour aller aux "magistratures et aux honneurs. Ainsi les vertus guerrieres "resterent apres qu'on eut perdu toutes les autres."

Grandeur et Décadence des Romains. C. 10.
See Cicero de Officiis, L. 1. C. 42.

* Dan. ii. 33, 41—43.

† Sir Walter Raleigh—The last chapter of whose History of the World, from whence this quotation is made, was justly said by Bishop Warburton, to be one of the finest pieces of composition in the English language.

her from the eyes and admiration of the world, after some continuance, she began to lose the beauty she had. The storms of ambition beat her great boughs and branches one against another; her leaves fell off, her limbs withered, and a rabble of barbarous nations entered the field, and cut her down."

With the melancholy results of this confusion and overthrow of the fourth great monarchy of the world, we are all well acquainted. For when the Saracens had completed in the eastern part of the empire, that work of desolation which the Goths and Vandals had before effected in the western; and literature and science appeared to have received their mortal blow, by the final destruction of the library

at Alexandria, a frightful and blighting gloom overspread the states of Asia and of Europe. The temple of knowledge, as it were, being thus thrown down, its disgregated fragments were afterward only to be found in situations remote from each other; their connection dissolved, their symmetry defaced, and their finest features at length overgrown and choked up, by the rank and noxious weeds of credulity and imposture.

It will therefore avail us but little to look into the writings of those authors, which the dark ages that followed occasionally produced. For however creditable their works might have been to their respective compilers, they now appear to us, as chiefly characterised by

those imperfections under which science continued to labour, till after the restoration of learning in Europe.

When this important revolution had taken place, and the invention of printing had supplied a more ready, and more certain way, of promulgating and preserving the information that was acquired, no branch of knowledge appears to have been more speedily and effectually benefited, than Medicine. Many diligent labourers in Anatomy arose, their discoveries were quickly made known, and we may trace a rapid progress in this first requisite for the substantial improvement of Surgery, in the successive works of Mundini, Vesalius, Fallopius, Eustachius, Fabricius, Malpighi, and others.

But the labours of these and many succeeding anatomists, served more to advance Surgery as an art, than as a science. We are obliged to confess, that it was too long unconnected with general philosophy, and a sound physiology. It became crowded with rules, but it was not proportionably enlightened by principles, till that individual was raised up, whose birth and usefulness we now commemorate. I think, therefore, that I shall approach more directly to the object of our present meeting, if, leaving a mere historical notice of deserving individuals, or improvements in particular departments of practice, I briefly review those discoveries and changes, by the nature and co-efficiency of which, Surgery has at

length been raised to that rank among the sciences, which it now so deservedly holds. I shall thus be able more distinctly to set before you Mr. Hunter's merits; to shew the important uses he made of the discoveries of others, and of his own; and to point out the advantages we have already derived, and shall yet continue to derive, from persevering in that safe road into which he has conducted us.

And first we must acknowledge our obligations, in common with those of the whole scientific world, to the talents and writings of Lord Bacon, whose wise and luminous mind so clearly perceived and effectually exposed, the folly of assuming an undemonstrated hypothesis, for

the purpose of explaining any branch of natural philosophy, and who, therefore, insisted on the necessity for observation and experiment, as the only basis of true science. To the influence of his irresistible arguments, we owe the diffusion of that spirit which led to the foundation of the Royal Society, and other institutions of a similar nature. The sublime discoveries of Newton followed, disclosing the universal laws of matter. A vernal and reviving warmth breathed over the frozen hills of science, and unlocked their ample stores. Every branch of natural philosophy received a new and efficient impulse. Experiment and discovery went on every where. Anatomical knowledge received the most important additions.

Harvey demonstrated the circulation of the blood. Asellius proved the use of the lacteals. Pecquet traced the thoracic duct. Rudbeck, Bartholin, Nuck, Dr. Richard Hale, and others, observed parts of the lymphatic system. The art of injecting the vessels was invented; the microscope was applied to anatomical uses; and Chemistry unveiled countless objects of research, in every department of natural history. Science is like an alpine region, where the attainment of one eminence is sure to bring others into view, though the summit may be still veiled by impenetrable clouds, or cut off by untraversable chasms. The true philosopher exults in the sublimity of the extending prospect, and feels doubly

excited to labour, and to encourage others to labour, in this boundless scope for the exertions of all.

Anatomy was cultivated with considerable ardour, by some intelligent persons in England; but the schools in which it was taught were few, and miserably defective; both as it respected the plans of the teachers, and the facilities afforded to learners. To what a lamentable degree these deficiencies continued to exist, down to the time of Dr. William Hunter, who began to lecture in 1746, and was admitted a Member of the Corporation of Surgeons, in 1747, may be judged of, by the following extract from one of his introductory lectures* — "In the

* Page 88.

course of my own studies," he says, "I attended, as diligently as the generality of students do, one of the most reputable courses of Anatomy in Europe. There I learned a good deal by my ears, but almost nothing by my eyes; and therefore, hardly any thing to the purpose. The defect was, that the professor was obliged to demonstrate all the parts of the body, except the bones, nerves, and vessels, upon one dead body. There was a fœtus for the nerves and blood vessels, and the operations of Surgery were explained, to very little purpose indeed, upon a dog. And in the only course which I attended in London, which was by far the most reputable that was given here, the professor used only two dead bodies

in his course. The consequence was, that at one of these places all was harangue, very little was distinctly seen; in the other, the course was contracted into too small a compass of time, and therefore, several material parts of Anatomy were left out entirely."*

Dr. Hunter, therefore, set himself to remedy this great deficiency in the Anatomical courses, by employing himself to make a competent stock of preparations, and by obtaining a larger supply of dead

* In confirmation of this statement, it may be mentioned that the Syllabus of Mr. Bromfeild's Lectures, published in 1743, including Anatomy and Surgery, comprises the whole in Thirty-eight; that of Dr. Nichols, published in 1746, proposes Anatomy, Physiology, the general principles of Pathology, and Midwifery, to be completed in Thirty-nine; and that of Mr. Nourse, published in 1748, "*Totam rem Anatomicam complectens*," has only Twenty-three, exclusive of the Syllabus Chirurgicus, which is very short and defective.

bodies. For the latter of these two objects, without which indeed the former could scarcely have been attained, unfortunately he had to contend, not only with public prejudice, but even with law itself. The circumstances of the time may, in a great degree, account for this; but that in these days, and in this metropolis, and for an object so interesting and essential to the public weal, no adequate provision should yet be made, which is not stigmatized by illegality, and by constantly laying us open to the artifices and impositions of low and degraded men, is a defect in our jurisprudence, which, we trust, the growing good sense and consideration of the public will not long suffer to continue.

To Dr. Hunter's researches, among other important discoveries, we owe that of the lacteals and lymphatics concurring to form one entire and distinct system of absorbing vessels, some of which arise in every part of the body, and converge and empty themselves into the thoracic duct, from whence their contents are conveyed into the sanguiferous system. Mr. Hunter, by assisting in this inquiry, laid a foundation in his own mind, for many future trains of reflection and investigation. Nor can I, while speaking on this subject, forbear to mention as highly deserving of public acknowledgment and praise, the diligence and zeal of Dr. Hunter's assistants, Mr. Hewson and Mr. Cruikshank, and the

coincident labours of Dr. Alexander Monro. Mr. Hewson published a valuable work on the blood, and on the lymphatic vessels, illustrated by some elegant engravings; and Mr. Cruikshank has left us a treatise on the absorbent system, which will be a lasting testimony of his industry in Anatomical pursuits, and reflect honour on himself, and on his preceptor.

Dr. Hunter's talents and labours were rewarded by a repute as a teacher, which surpassed that of all his cotemporaries, and by a distinguished share in the public confidence. But his being successful did not diminish his desire to be useful. His personal wants were few; but his ardour for science was great. In pro-

cess of time, he collected a museum, then of incomparable value in anatomical preparations, both natural and morbid, and to this he added a magnificent collection of rare and expensive books, coins, fossils, and shells. And as it was his wish to make this collection a public benefit, when his fortune became sufficient to render such a measure consistent with prudence, he proposed to the Government, to allot a piece of ground for the erection of an Anatomical Theatre, or for any scientific establishment of which such an edifice might form a part; that he would then give his whole collection to it, spend £7000 himself on the building, and endow a professorship of Anatomy in per-

petuity. This liberal proposal was coldly neglected by the ministry, and, therefore, finally dropped by Dr. Hunter, who afterward directed by his Will, that his Museum should be sent, at a limited period after his death, to the College at which he had been educated: so that, unfortunately perhaps, in some respects, for us, but happily, I hope, for Scotland, this treasure now enriches the stores of the University of Glasgow.

But whatever may be thought of this imperfection in the policy of the administration at that period, especially as it may now be contrasted with the wiser views of a later and more enlightened cabinet, I cannot help being of opinion that its consequences have not been injurious to

us upon the whole; and that the continuance of Dr. Hunter's lectures and dissections on the free and independent plan on which they were originally commenced, was far more beneficial, by the example they held out, and the spirit they diffused, than they would have been, if circumscribed by the formalities of a public establishment, which, however greatly superior to any thing then existing, we must now see, could not have been commensurate with the present extent and necessities of the Empire.

For his zeal for the advancement of Anatomical knowledge, suffered no abatement from the disappointment of his project. And it is to be observed, that Dr. Hunter's lectures were not like the

cold and perfunctory fulfilment of a prescribed round of duty; but were always the prompt and interesting communications of a zealous and well-fraught mind glowing with a conviction of the vital importance, and enamoured with the beauty of the science he taught, and anxious to make others as laborious and as useful as himself. He therefore held no secrets. His theatre and his dissecting room were open to all students on equal and liberal terms. Engaging and affable in his deportment, candid and honourable in his sentiments, diligent and successful in his researches, clear and perspicuous in his descriptions, ingenious and entertaining in his illustrations, his hearers felt the charm of true phi-

losophy, and many became desirous to copy the example which all admired. The results shine all around us. It is, therefore, with equal justice and pleasure, that on an occasion like the present, we pay our tribute of respect to the memory of this great man, whose death was regretted by all the lovers of learning; and to whom, as an Anatomist, this country is under indelible obligation. It was under his tuition and patronage, that the more peculiar talents of his brother were first elicited and cherished, and to his example and instructions we are greatly indebted for many of the advantages, which have since flowed down, through others, to us. And should his fame, either now, or hereafter,

be equalled, or surpassed, we must still recollect, that the star which announces the approach of the morning, is not less to be admired, because it is the harbinger of a better and more perfect light, in which its own will be lost.

Many circumstances, however, in various quarters, and of different dates, seemed, as it were, to converge together, deriving efficiency from Dr. Hunter's zeal, so as to render the time in which he flourished, a most important epoch for Surgery in England. We may indeed apply to it the expression of Claudian, concerning the sixth consulate of Honorius—

" præteritis melior, venientibus auctor."*

* De VI. Cons. Honor. L. 660.

As Anatomy had before been so imperfectly taught, Surgery could not have been very prosperous. The writings of Wiseman, who was Serjeant Surgeon to King Charles the Second, while they afford abundant proofs of his own sagacity, present us with a dismal view of the state of practice in his time. From him to Mr. Cheselden, including a lapse of fifty years, no material progress appears to have been made. It was with Cheselden that things began to assume a more promising aspect among us. France had been more fortunate: her kings had formed a proper estimate of the importance of Surgery, and had done much for its cultivation. Paris was therefore justly considered as the

first school of Surgery in the world. Ambrose Parey, Dionis, Duverney, Le Dran, Petit, La Faye, Winslow, and some others, are names of which that country may still be proud. Most of their works had been translated into English. In 1743, Louis XV. founded the Royal Academy of Surgery, and its publications were exciting a general interest. Morgagni had invited a greater attention to morbid Anatomy. Heister's useful and valuable system was become familiar to students. A zeal to emulate these great men had been produced. Haller had published his important experiments on irritable and sensible parts. The large additions that had been made, in various quarters, to physiological

knowledge, were at length embodied by that illustrious physician in his great work, the *Elementa Physiologiæ Corporis Humani.* The works of Cheselden, and his pupil Samuel Sharpe, had been attended with the best effects. The anatomical plates published by Bidloo, Albinus, Haller, and others, afforded valuable assistance in the study of Anatomy. The number of public hospitals in London had increased. A more liberal admission of pupils was allowed. The cultivated and observant mind of Mr. Pott was diligently employed; and his writings and public lectures on Surgery, diffused an important influence: and finally, John Hunter, with a discernment peculiarly

his own, began to investigate and ascertain those principles in the Animal Œconomy, which at length enabled him to carry light into almost every department of pathology.

Mr. Hunter began his studies in his brother's dissecting room in 1748, being then in the twenty-first year of his age. Having continued them till 1761, he was appointed Staff Surgeon in the expedition against Bellisle: and from the account he has given us of the employment of his time there, it is evident that during the preceding twelve years, he had been an acute observer, and a laborious collector and treasurer of facts; that he thought for himself, and was anxious to put every obscure, or

doubtful point to the test of experiment. Having commenced his professional pursuits at a later period of life than was usual, and then beginning with Anatomy, he had not been shackled by the prejudices of the times; and the native independence of his mind enabled him at once to escape the narrow path, in which Surgeons had been too long accustomed to tread, hedged in, as it were between hypothetical assumption on the one hand, and empirical repetition on the other. He entered, free and unfettered by either, into the field of physiology, explored its recesses, and devoted the rest of his life to collect and arrange its stores, and to convert them to practical uses, of the

greatest importance to his profession, and to mankind.

It is one characteristic of a truly great and philosophical mind, that its first advances are not so much marked by bold and adventurous leaps, as by a consistent and regular progression; that it is careful wisely to accumulate and set in order its stores, before it affects to display or expend them; that, justly diffident of itself, it learns well to stand before it attempts to climb; and that its conception of vast objects, makes it more particularly anxious to secure an accurate knowledge and adjustment of small ones. It is this which on many occasions, both ensures and distinguishes its success. Before the il-

lustrious Nelson fought the tremendous battle of Copenhagen, he went out to take the soundings himself of that water, which was on the morrow to be the scene of his triumph. "I could only admire," says an eye witness and companion of his Lordship, on that memorable occasion, "when I saw the first man in all the world spend the hours of the day and night in boats, and wonder when the light shewed me a path marked by buoys, which had been trackless the preceding evening." But hence it was, that by movements, which, to the less accurately informed, appeared over hazardous and rash in that most intricate situation, with that stedfast self-possession

and heroic confidence, which knowledge only can inspire and uphold—

"Calm and serene, he drove the furious blast."

Mr. Hunter returned to London in 1763, with an unabated ardour for research, and in December, 1768, he was elected one of the Surgeons of St. George's Hospital. His field for observation and practice was now greatly diversified and enlarged, and he diligently availed himself of the opportunities it afforded him. In 1773, Sir Everard Home has informed us, he formed the plan of his course of lectures, in which he explained at large those views which he had taken of the most important

subjects in Surgery, and which are chiefly contained in the volume he has left us on the Blood, on Inflammation, and on Gun-shot Wounds.

Of this incomparable and truly original work, it is difficult for me fully to express the value and admiration I feel—*Legat qui nunquam legit; qui semel legit, relegat.* When I consider the immense importance and universality of the chief subject on which it treats; the crudity, not to say the absurdity, of the notions which had been entertained respecting it before Mr. Hunter's time; the laborious, connected, and truly philosophical manner in which he pursued the investigation, the multitude of facts which he collected, and

the great and happy change which the promulgation of his views (for *opinions* I will not call them) has been the mean of producing, both in the theory and practice of Surgery, it appears to me the most important physio-pathological work that ever issued from the press—A careful notation and digest of principles, by the soundness and influence of which, Surgery has been raised from the servility of a mechanical art, which had been indebted chiefly for its superiority to the subject on which it was exercised, to a science of the highest interest and importance; built on elementary facts, ascertained and demonstrated by patient and unbiassed observation, and by the answers

of nature herself, to the sober and humble interrogations of relevant and well-conducted experiment. It was published at the close of a long and active life, after ample and reiterated study and examination. Yet he tells us, after all, how conscious he was of many imperfections in it. But he justly observes, it was to be considered "as a new figure, composed from rough materials, in which process little or no assistance could be had from any quarter." Nevertheless, his conviction of the verity of the principles it contains and illustrates, enabled him confidently to anticipate its ultimate success; and to predict, that it would "not only enable persons to write on the subject, who could not otherwise have done it,

but even to become critics in matters, of which, till then, they were entirely ignorant."

In order, however, fully to enter into the merit of Mr. Hunter's labours, it is necessary to keep in view the leading impression which appears to have given them their peculiar impulse and direction. For then is the power of example most forcible and instructive, when we are enabled to connect the actions we contemplate, with those operations and reflections of the mind, by which they were suggested and governed.

Dr. William Hunter had well taught, and Haller's experiments had plainly shewn, the absurdity which was charge-

able on the prevailing physiological and pathological theories of the time, of attempting to explain the functions of life, by arguing only from dead to living matter. This truth engaged Mr. Hunter's early attention; he soon felt the necessity of studying living actions in themselves, in order to arrive at safe conclusions respecting them; he saw that all other known powers were incompetent to account, either for the subsistence, or the agencies, of a living body; that a more accurate cognizance ought to be taken of that principle, or power, which, as he expresses it, "preserves the body from dissolution, with or without action, and is the cause of all its

actions;" that to investigate the phænomena, in which this principle is developed, and the laws by which it governs and is governed, was the physiologist's chief concern. Accordingly, whether he examined natural or diseased structures, or processes, either in man or in any other animal, his eye was continually directed, undazzled by hypotheses of any description, to vital operations. This, he says, was "always his favourite business and amusement."* It was this which stamped a novel and peculiar character on all his labours, and has given to his writings their intrinsic and permanent value. He never intended his Museum

* Observations on The Animal Œconomy, Page 115.

to be a mere cabinet of rarities, nor even a mere exhibition of structures; but to be a systematic and illuminated record of the operations and products of life, in a state of health, and under the influence of disease, and in its various approaches and recessions from the one to the other. I could wish every member of the profession to be aware of this. The Museum will then be visited with double interest and instruction, and we may anticipate large and bountiful additions to it, from those who have it in their power to further this grand and important scheme of universal good.

It is not surprising that an inquiry then so peculiar, and which first en-

tered deeply, and minutely, and extensively, into the phænomena of life; and statements, the result of it, which showed life to reside in the blood, and in other fluid and semi-fluid substances, and which, either discarded the prevailing theories, or at least, sent them back for re-examination, and which, rendered a new terminology necessary for an adequate discrimination of facts, should appear incomprehensible to some, and even be reprobated by others, who had been educated under different and narrower views. To learn is often difficult, even when it is attended with pleasure; to unlearn is still more difficult, and it is mostly attended with pain.

I think it is to be regretted, when

the idea Mr. Hunter has given of the principle of life is objected to as metaphysical. Metaphysical indeed it may be truly called, if we understand the term Metaphysics in the sense in which Aristotle originally employed it, to denote that study of causes and principles, in which, he says, wisdom consists,* and of which, therefore, the mind must take cognizance by its own contemplations, in addition to that knowledge of

* From hence he concludes, that he who has the most extensive and perfect knowledge of causes, is the wisest man; and that perfect wisdom can only belong to a supreme, eternal, and perfectly happy Being, who is himself the primary designer, and first cause of all things. An idea sublimely true, and finely illustrative of the expression of the apostles Paul and Jude, μονω σοφω θεω. Rom. xvi. 27. 1 Tim. i. 17. Jude 25.—V. Arist. Metaph. Lib. i. C. 1. and Lib. xiv. and Gillies's Analysis of Aristotle's Works, P. 100, et seq.

physical facts, which it acquires immediately from the senses. But, if we take for metaphysics that art of subtilizing abstracted and gratuitous distinctions, in which the schoolmen indulged, and which, by a sad perversion of language, seems almost to have monopolized the name; then nothing can less deserve to be called metaphysical than Mr. Hunter's statements. Indeed he does not seem to have possessed an excursive imagination. * It was only by a close and undiverted at-

* "His mind was naturally formed for investigation, and that turn displayed itself on the most trivial occasions, and always with mathematical exactness. What is curious, it fatigued him to be long in a mixed company, which did not admit of connected conversation; more particularly during the last ten years of his life."

Sir Ev. Home's Life of Hunter, p. 65.

tention to the sequences of facts, that he was led to an induction of their causes.

It may farther be added on this subject, that Mr. Hunter's view of life is in harmony with the only rational account which has ever been given, of the first production of living beings; from which we may collect, that in the real order of things, the organization was first completed, and life afterward bestowed, as a power, or principle, by which the original individuals should be, for a time, preserved in their destined states of action; and which, should ensure a succession of races of beings, of like form and nature to themselves, and to be produced by them, each engen-

dering its own kind only.* And it must be remarked, that these are the final causes of life under all its modifications; that though it exists in an infinite variety of forms, it can never be originated from casual, or amorphous masses; and that when in consequence of irregularity, or excess, in its operations, such masses are produced, they are to-

* Gen. ii. 3, 5, 7. The expression in verse 3 is very remarkable, and inadequately rendered in the current English version, *which God created and made;* but better in the marginal reading, *created to make,* אשר ברא אלהים לעשות, *quod creaverat Deus, ut faceret,* (Montanus) *which God created that he might make;* distinguishing thus between production and adaptation, *(matter and form)* to both of which life was afterward superadded, to give efficiency to the whole. So, verse 5, *The Lord God made the earth and the heavens, and every plant in the field,* BEFORE IT WAS IN THE EARTH, *and every herb of the field,* BEFORE IT GREW. Again, verse 7, *And the Lord God* FORMED MAN OUT OF THE DUST *of the ground, and (then) breathed into his nostrils* THE BREATH OF LIFE, *and man* BECAME A LIVING SOUL.

tally unable to sustain a separate and independent vitality. That it depends on no particular quantity of matter, but is as entire and unconfused in the minutest animalcule, as in an elephant or a whale. That it is in all cases intended to constitute and to maintain, individuality of kind in the mass which it occupies, and that when it is rendered incompetent to this end, it is always evanescent, and soon leaves the matter over which it had exercised its dominion, open to the decompounding operation of surrounding agents, from which, pending that dominion, it afforded a competent protection—(the poverty of language compels us, on these subjects, to have recourse to figurative modes of

expression)—In these respects, therefore, it differs from every other power with which we are acquainted, while it so arranges its materials, and builds up its structures, as either to counteract or elude them, or else to make them subservient to the purposes it is itself carrying on. The attractions of cohesion, gravitation, and chemical affinity, electricity, and the mechanical powers, may be distinctly recognized as taking part in its operations; but all as coadjutors only, neither of them as the director of the whole; either of them in excess, may overpower and extinguish it; but when it is once lost, not any of them can reproduce it; nor can it ever be restored, but by a special interposition of the same

creative power, which first ordained, and allotted its existence.

Having thus noted the peculiar agent, or active principle, by which the body is constructed and actuated, Mr. Hunter's attention was next directed to the material which it compounds and employs, in order to effectuate its purposes; which purposes, he observes, are reducible to two heads, the support of the matter of the body, and the support of its different actions. He therefore carefully examined the component parts of the blood, its material and vital properties, especially its power of becoming solid; the circumstances attending and following that change, in different situations, and under different

conditions; and the reciprocal influences of the circulation, digestion, and respiration upon each other. He shewed the harmony which subsists between living blood and the living parts with which it comes in contact, and for the support of whose life, and substance, and actions, it is destined, and the effects produced when that harmony is destroyed. He watched its movements from the *punctum saliens* in the incubated egg, to its various meanderings and influxes through the complicated intertextures and communications of arteries and veins, sinuses and cells in the sanguiferous systems of perfect animals; looking into them all for facts to illustrate the phænomena he observed in man, or to direct him

to others not yet recognized; he noticed its appearances in health and in diseases, during life and after death. Then he investigated the construction, reciprocal adaptations and distributions of the different parts of the vascular, absorbent, and nervous systems, and their functional connections with each other. And having laid this broad and substantial foundation for the consideration of his subject, he proceeded to an experimental examination of Inflammation; its various kinds, degrees, and circumstances, as the disordered action of these living vessels, the carriers and distributors of this living blood. With a scrutinizing eye, and employing all the known means of anatomical research, he examined the

changes it produces in parts of every structure, and every function, from its most simple and superficial manifestations, to its greatest disturbances and ravages; and the nature of the effusions, secretions, and deposits arising from it; the concomitant and subsequent action of the absorbent vessels, and the states of the nervous system, under these varied circumstances; and from the whole he deduced those principles respecting its treatment which this extended survey of facts, and the known properties of remedies, would indicate and justify. These principles he put to the best possible test, by an application of them to the management of gun-shot wounds; in which, every order of parts in the body,

comes occasionally under exposure and review, in all the varieties, progressions, and terminations of inflammation. He then felt himself authorized to apply the same principles, and the line of conduct suggested by them, to inflammation as it occurs in adjunction to other injuries and diseases, and operations; in all cases balancing the existing actions of parts against their respective powers, and considering when, and how, and in what degree, either should be diminished, or excited, or supported. By this train of investigation, he greatly illustrated the nature and consequences of inflammatory diseases in general, and thus rendered incalculable benefit to medical science at large, and especially to Surgery; and

often found his way, when others were at a loss: so that those who could not enter into his reasonings, and therefore treated them as visionary, could not help being struck with the general correctness of his decisions, sought his counsel in difficulty, and often strengthened their own reputation, by adopting those means of relief which his resources enabled him to suggest, though not always in accordance with their own opinions. For Truth is not content with exerting her power, and conferring her benefits, on those who display and admire her; she extends them also to those who mistake, and even to those who oppose her.

It is curious to observe with what effect the principal discoveries by which

physiology has been advanced, appear to have thrown their combined light into Mr. Hunter's microscopic mind; each concurring with the rest in enabling him to discern and to connect the uses of all. I have already noticed how he pursued the course of the blood, tracking it, to the utmost of his power, into every structure and every process, whether healthy, morbid, or remedial. The art of injecting furnished him, and him first, with the explanation of adhesive inflammation, its multiform results, and the rational treatment of them, and of the mode of production and evolution of many præternatural formations. His examination of the absorbents, led him to a careful reflection on the actions

and uses of their primary branches and originations, and of their glands, and thus to an explication of some of the most important phænomena of health, of disease, and of restoration. He entered largely into the subject of irritability, both natural and morbid, pointing out the distinction between this property, and power. He noted the different sympathies, and orders of parts, and their respective shares in the functions of health, and in the transmission of disease. He illustrated the effects and treatment of the venereal disease, and distinguished its specific effects from those of other circumstances which may co-exist with them. He showed how generally præternatural actions have a tendency

to counteract each other, and that it is often by instituting new actions, incompatible with those already existing, that the latter are subdued, rather than by the evacuations which are often produced in this process, to which their curative effects had generally been ascribed, and on which an erroneous reliance had often been placed. To his familiar acquaintance with all these principles, an acuteness in discriminating their separate influences, and a promptitude in summing up their total amount, we owe many wise and successful deviations from the former practice. His operation for popliteal aneurism, for instance, one of the greatest improvements ever made in Operative Surgery, and which has led to

such important results, was no rash, nor conjectural, nor casual undertaking; but a scientific calculation, computed from his knowledge of the capability of the anastomosing arteries, and that of the absorbents, and the confidence he felt entitled to place in their co-operation. He therefore not only introduced improvements, and devised expedients himself, but gave additional value to those of others, by disclosing the principles on which their success was founded, and thus at once elucidating and establishing their real merits, and often suggesting an application of them to ulterior objects. He thus opened an ample way for the progress of succeeding investigators, pointing to many objects which

required farther research, and leaving way-marks, as it were, where he had not leisure, or means, to tarry himself, but where future travellers might find profitable employment.

His experiments on living animals were numerous, almost beyond compare. For though it is always distressing to a feeling mind to cause pain to any sentient being, yet there is no other way of ascertaining many facts which are altogether dependent on life, and therefore observable only during its continuance. If this remark should be thought by any to partake somewhat of cruelty, let it be recollected, that to slaughter animals daily for our food, to entangle or imprison them for our

amusement, and to chase them over field and over forest, and then mutilate or destroy them, for either of these purposes, necessity and habit have completely reconciled us. And if in these cases we act in no dissonance from the general system of nature, and the end justifies the means, to ascertain with precision such facts as may lead to the preservation or restoration of health, must be a purpose which will equally authorize the sufferings we reluctantly inflict. Having this benevolent object solely and constantly in view, we are chargeable with no angry nor wanton cruelties; our humanity is not deteriorated; on the contrary, it is enlightened and directed; because we are thus

enabled more clearly to discover how it may be most correctly and successfully employed for the relief of the afflicted, and to derive a superior gratification from this source, which must ever predominate in our breasts.

Constantly pursuing a connected course of experimental inquiry for such a benevolent purpose, Mr. Hunter was awake to every fact which could throw light upon it. His observation of the unprutrescent state of eggs in the advanced stages of successful incubation, first led him to discriminate betwixt life, as a power, and organization, as the mere mechanism by which it operates. By noticing the movements of some drowning snails, and the effects produced upon

lizards, by bringing them prematurely out of their lurking places in the winter, he ascertained some of the most important in that chain of facts, which guide and encourage us in our attempts to restore suspended animation. Every animal, every disease, presented him with some topic for illustration or research. He has therefore enriched human and comparative Anatomy, and morbid Anatomy, and Surgery, with so many observations of facts of radical importance, and established their correctness by so many valuable preparations contained in his collection, that the donation of that collection to this College, by the Legislature and Government of our country, and the foundation of lectures upon it,

was an act of lasting beneficence to the whole human race.

The greater number of those Surgeons who have received their professional education among us in later years, have, from the commencement of their studies, been so familiarized with the ideas Mr. Hunter originally communicated, and which are dispersed through his writings, that his views of physiological and pathological facts, are incorporated with their most elementary conceptions. To such persons, happily, they have never borne the appearance of innovations, but only that of first and indisputable principles, which it seems strange should ever have been doubtful, or obscure, or unobserved. So was it with the axioms of Bacon and

of Newton, when the lustre of their self-evidence had withered the dogmas of the schools, and had set men in the right track for the detection and discrimination of truth. Those who look only on the present state of knowledge, and have not personally witnessed the changes that have taken place, may perhaps be sometimes tempted to undervalue, or overlook, those grand efforts of intellect, by which truths of the greatest universality and importance, and which now appear the most simple and incontestable, were first noted, and disentangled from the mazes of error and conjecture. But to be adequately impressed with the advantages of light, it is not only necessary to look on the objects it re-

veals; we must also reflect on the obscurities that have fled before it, and there are occasions, on which those feel a peculiar pleasure in the prospects it sets before them, who, having observed its dawn, and witnessed its progress, at length behold the full display of its irresistible dominion.

But in this attempt to point out some of our obligations to Mr. Hunter (for I could considerably lengthen the list,) I have not yet mentioned what I consider as his chief praise; I mean the philanthropy and public spirit which characterized his life, and were conspicuous in all his undertakings. His was that true and lofty spirit of science, which will not condescend to seek for emi-

nence or wealth, by arrogating a degree of skill and dexterity that no other can attain, or vaunting a remedy with which no one else is acquainted; but which rests for its reward on the fair fame and merit of its acts; which is ever intent on the discovery of truth, and is then most of all delighted, when it can most effectually assist others in the common labour and duty of us all—the advancement of human knowledge, and the alleviation of human distress. It was this which gave to his example, and to his efforts for the improvement of his profession, that moral and enduring force, without which they would have failed of their aim. Mr. Hunter was as willing to awaken and to

assist the researches of others, as to prosecute his own. The thing that vexed him most, was, to see so much to be done, and so few disposed to take a part in doing it. And I am confident his breast would have glowed with joy, could he have anticipated the assembly to which I have this day the honour to address myself, and have imagined the presence of those distinguished Surgeons, who have pursued his discoveries, extended or corrected his views, opened new sources of information, and animated by an equal candour and benevolence of disposition, have become honours to their profession, ornaments of this College, and benefactors to mankind.

It was with a view to form and to

develope such useful characters, that in conjunction with his learned friend Dr. George Fordyce, then the most eminent lecturer on medicine and chemistry in London, he founded a Society, called the Lyceum Medicum Londinense, for the benefit of students, as well as of settled practitioners in each branch of the profession. To this Society he gave gratuitous permission to meet weekly, during the season, in his Lecture Room, where he generally displayed for their inspection, the most interesting and instructive additions that were made to his Museum. From this have originated several similar societies in the metropolis, where youthful talent is encouraged to unfold itself, and where each member is ex-

pected to become an observer and an enquirer for the rest, as well as for himself, that he may receive a reciprocal benefit in return.

Mr. Hunter's valuable life was suddenly terminated on the sixteenth of October, 1793, before he had completed his sixty-sixth year. And it cannot be improper for me here respectfully to mention, that Mrs. Hunter, having survived him more than twenty-seven years, died on the seventh of last month, in the seventy-ninth year of her age; after sustaining an honourable widowhood, estimable for talents of her own, and venerable as the relict of her illustrious husband.

Variously placed as we are in society, with different talents, opportunities, and duties, equality of attainment is neither to be expected nor desired. Indeed, its diversity binds society together. Yet, in Mr. Hunter's example, we may all see to advantage, how the ground-work of professional excellence is to be laid; and it is the duty of us all, as much as in us lies, to strive to lay that ground-work well. More especially is this the duty of those, who aspire to situations that will hold them up as examples and instructors to others. Like Mr. Hunter, they must go from the agent to the material, from the material to the structure, from the structure to the function; then to local, relative, and

sympathetic connection; to the varied nature and effects, whether local or general, of injuries, disorders, and diseases; to the properties, modes of employment, and of the action of remedies; and the nature, time, methods, antecedents, concomitants, results, and contingencies, of such operations as may be required, and the progress and regulation of those curative processes, over which we have a limited influence, but which can only be executed by the powers and resources of life: and they must avail themselves in their progress of all the lights which the different branches of philosophy will afford them; conducting themselves throughout, as the humble enquirers, and teachable scholars of nature, who,

if we overlook the supremacy of her laws, or break away from the minuteness and subtilty of her arrangements, will mock our speculations, and write our theories in the sand. It is by this orderly assemblage of principles in the mind, that it will be made at once discriminating and comprehensive, so that both passing and recorded facts will attach themselves to it, not as a mere loose and turbid deposit, but with the clearness, regularity, and permanence, of characteristic form, available for use, and at hand when required, to assist meditation, to impart instruction, and to strengthen and guide us through difficulties in practice. It is this alone which can fully fit us, fairly to estimate,

or faithfully to correct, either the opinions of others, or those which we ourselves may form; which can render us fertile in expedients, and point out the way of safety, where the beaten path divides, or stops short before us. All pretensions to an exclusive, or superior knowledge, or treatment, of any particular diseases, or of the diseases of any particular organ, that cannot ultimately rest on this foundation, are in their own nature defective, and for the most part illusory; and whatever attractions they may hold out to the credulous, the impatient, the terrified, or the despairing, they are, upon the whole, detrimental to the advancement and diffusion of knowledge, and therefore, adverse to the

general good. Nor will the boast of experience avail them much in the eye of sober reason—Experience has been justly defined by a celebrated German Philosopher,* to consist in what we know by an attention to our perceptions; but if we are not careful to acquire, and proceed upon, a just and coherent knowledge of principles, our perceptions will be partial and dislocated, and our experience will soon dwindle away into mere superficial remark, and almost undistinguishing repetition.

But though Science admits neither monopoly nor mystery in her train, and bestows her chief applause on those who

* Wolfius—Logic. C. 5.

elucidate truth by truth, who discover the connections of facts with the principles on which they rest, and unreservedly lay them open to the world, she always welcomes the unsophisticated narration of facts, from what quarter soever it may come. Not the wisest among us can tell by whom the most important of them shall first be observed. Truth was often well compared, by a late revered and learned friend of mine, to a ball of crystal that fell down from heaven, and dashed into thousands of pieces, which were scattered all over the earth. No individual, he would say, however extensive his domain, has possession of the whole. Often you will find an useful portion where you least

expect it. Only be sure that you know the characters of the true gem, and are able to distinguish it from counterfeits, and then you need not despair of discovering some fragment at least, which, fitly adjusted, or wisely deposited, may not only enrich your own mind, but also render you of service to others.

With pleasing anticipation, therefore, may we look round on those who have entered on their professional career in these more enlightened days, when the works of the great men of early times have received the improvements and additions of Parey, Wiseman, Cheselden, Samuel Sharpe, Pott, Hawkins, Bromfeild, William Sharp, Allanson, Hunter, Earle, Hey, and many others, who

have flourished in this and the sister kingdoms, and on the Continent; and these have been still farther increased by the valuable labours of many living characters, whom we have the happiness still to possess; and who, though the delicacy to be observed on these occasions will not allow me to name them, are well known to all this assembly. From hence, and from the facilities afforded for the administration of medical and surgical aid to our poor, by the bountiful contributions of a generous people, in support of hospitals, infirmaries, and dispensaries, society already wears a different aspect from that, which some of us remember it formerly presented. Seldom do we now behold those squalid

and deformed mendicants, scarcely less the victims of poverty than of diseases ill understood, or of injuries unaided, or unskilfully treated, that used to shock the feelings of every compassionate heart, in almost every walk through our streets. Ulcers of the legs, once too justly called the *Opprobrium Chirurgorum*, which then formed so large a portion of the disease and misery of all classes of the community, and especially of the laborious poor, are now in general, successfully treated. To my lately deceased friend, Dr. Michael Underwood, formerly a member of this Society, and who had been an assiduous pupil of Sir Cæsar Hawkins, is the credit due, of having established the rationality and efficacy of a mode of

treatment, by which most of these cases are rendered manageable, and many of the most distressing of them permanently cured. By following the principle on which he set out, this practice has received important improvements, especially by Mr. Bayntun, of Bristol, and an useful application to analogous states of disease. It is therefore with sincere pleasure that I avail myself of the opportunity which is now afforded me, to pay this just tribute of respect to one of the friends of my earliest professional studies, whose constant, and beneficial, and charitable solicitude for this class of sufferers, I had many opportunities to witness, and whose treatise on the subject is worthy of a place in every Surgical library.

To a benevolent mind, when duly appreciating the value of health, and the calamities attending its loss, and contemplating the nature and number of those casualties and diseases, from which, no rank nor condition in life, nor tenderness of endearment, nor importance of character, is capable of conferring an exemption; it must be gratifying to know, that there are now, in the British dominions, at home and in the Colonies, several thousands of persons, who have passed a satisfactory examination at this College; that many more are dispersed over other parts of the world, carrying with them the benefits derived from our present extended and appropriate system of Surgical education, and assisting to

confer those blessings on their fellow creatures, without which, all the splendour of external pomp "begins to pale its ineffectual fire"---blessings which are oft seen to awaken the finest sensibilities of our nature; and for which, even the clenched sinews of avarice will, sometimes, spontaneously slacken their grasp.

But while we reflect with satisfaction on the prosperity of our own exertions, we must not omit to acknowledge, with the great respect that is due, the manifold public advantages which have constantly been derived from those of the Royal College of Physicians; who not only in these brighter days, but through a long æra of comparative darkness and prejudice, preserved the light

of Medical Science unextinguished and pure; and who have, for three centuries, continued to reflect honour on this nation, by members eminent for learning, great in science, and distinguished by the first excellence in professional attainments. Having enjoyed in our Universities the highest means of cultivation that are provided for the human intellect, and then devoting themselves to the study and practice of medicine; these enlightened persons are most wisely and beneficially appointed the constitutional guardians of the public health; and we feel it an happiness to unite with them in our endeavours to mitigate the pains of disease; to convey consolation and hope into the chambers

of anxiety and alarm; and to avert, or alleviate, that stroke, which rends asunder all human attachments, by disuniting the conscious and immortal part of man from the world of matter, and transferring it to the world of spirits.

But it is not enough that we advert to the benefits derived from Surgery, in the comparatively tranquil and measured course of civil life; we must not forget what it has accomplished in other and more turbulent scenes. We must turn to those seas, and fields, and mantling walls, over which the thunder of the murderous cannon has roared; where fire and sword have met in awful conjunction, to support, or to oppose, unrelenting ambition; and where the loaded

engines of war have vomited forth instant death and mutilation upon thousands, and tens of thousands. How many lives have been preserved; how many days and nights of agony and torment have been prevented; what solace and consolation have been afforded in the slow and gloomy hours of anguish and suspense, by the firm and faithful hand which Surgery has been enabled to stretch forth to the relief of the suffering brave! Sudden, arduous, and complicated, are often the duties, which a naval or a military Surgeon is called to perform—

"Hic illi occurrit Tydeus; hic inclytus armis
Parthenopæus, et Adrasti pallentis imago"—

but well have these duties been sustained. The tried skill and humanity

of our Surgeons, have been associated with the military glory of their country, and have divested the day of battle of half its horrors.

With such recollections, we gratefully acknowledge our obligations to the late revered and benevolent Sovereign of these realms. Ever earnest to promote all that could advance the moral, the political, the social, or the individual good and happiness of his people, and duly estimating the importance of appropriate civil institutions to national greatness and internal tranquillity, GEORGE THE THIRD honoured the progress of Surgical Science with his royal notice and patronage. By founding this College, he conferred that exterior rank on our

profession, of which its growing character and utility had rendered it worthy: and he readily gave his regal sanction to that munificent grant of the Parliament, by which Mr. Hunter's Collection was purchased at the national expense, and a building erected here for its arrangement and preservation; on condition that it should be made available for the public good, by the free display of it under proper regulations, and by the establishment of lectures for its illustration. And though the weighty hand of affliction long prevented our venerable and beloved Monarch from beholding the multiplied effects of his own beneficence, Science had still a Royal Patron and Friend in that Illustrious and Enlightened

PRINCE, who has now ascended the BRITISH THRONE, and under whose wise and auspicious government, events have been brought about, the most momentous in the history of nations, and discoveries have been made, which are among the most brilliant in the annals of science.

In the fulfilment of those purposes for which Mr. Hunter's Museum was committed to our care, and that we may answer to the liberality and confidence of the high authority by which this trust was bestowed, and the introduction of additions from abroad is freely permitted, we have been employed with diligence, and we are encouraged by success. Already have benefits re-

sulted both to the profession and to the public, which must be gratifying to all who feel interested in the advancement of Science, and of the Healing Art. They have done honour to the ability and judgment of the successive boards of curators; to the talents of the Professors who have from time to time been elected by the Court of Assistants; and to the zeal and intelligence, with which the Conservator of the Museum has always fulfilled the duties of his important office. And as the transactions of every meeting, board, and committee, are accurately recorded by the Secretary, whose faithful and unremitting attentions to the concerns of the College merit open commendation, the details of our

proceedings will be preserved for the reference of our successors. The Museum, which is receiving continual additions, opens to the Philosopher, to the Physician, and to the Surgeon, an extensive and well assorted treasure of interesting and important knowledge. The Prizes which have been instituted have awakened the emulation of our junior brethren. The Lectures on Human Anatomy and Surgery, give an additional advantage to Students, and afford opportunities for those who have finished their initiatory studies, to retrace, from time to time, those facts and general principles, which, amidst the concerns of life, often lose somewhat of their distinctness in the mind. The Lectures on

Comparative Anatomy, will keep up a general and useful interest concerning the laws and destinations of animated being, and the structures by which they are carried into effect. And by the whole, we trust, our members and the public will feel, that by increasing the scientific resources of this establishment, they are strengthening one, and not the least important, of those institutions, which invite the friendly intercourse of nations, and thus promote the mutual benevolence and harmony of mankind.

Among those friends of philosophy who have kindly availed themselves of opportunities to add to our stores, and to encourage our exertions, it is right here especially to notice the Right Honour-

able the late President of the Royal Society, who was the first Honorary Member of this College, and whose death since our last anniversary, we have had to deplore. The eminent name of Sir Joseph Banks, every philosophical society of celebrity in the world was proud to enrol among its members, and was placed, by the favour and just esteem of his Sovereign, among the Knights of the Bath, and the members of the Privy Council. Distant climes will remember him as their peaceful and benevolent visitor; seeking among them for useful knowledge, and endeavouring to communicate it in return; and in our own country, all ranks have regretted his loss. He was the friend and patron

of Mr. Hunter, and continued, during the whole of a long and memorable life, to be the munificent promoter of every branch of scientific research.

Nor must the presence, on this occasion, of that distinguished philosopher who has been recently called to fill the chair of the Royal Society, prevent our acknowledging with grateful respect, the benefits which humanity and science, and especially Medical Science, have received from those splendid discoveries which his talents have effected, from the further enquiries those discoveries have suggested, and the elucidations they have in various instances afforded. Neither can we pass unnoticed the merits of Baron Cuvier, the remaining Honorary

Member of this College; called by the present patriotic Sovereign of France, to take part in his Councils, and whose transcendent labours in Comparative Anatomy, have obtained him universal fame. We hail also with delight the numerous discoveries of other celebrated individuals and societies, both at home and abroad in this and other departments of natural knowledge, which all combine to throw light on that which we are most engaged to study and improve. For the sciences are like the stars in the firmament; though each is most brilliant and most useful in its own peculiar sphere, yet in its measure it illumines, and is illumined by, all those which surround it.

I cannot therefore conclude this address without congratulating the younger members of the College, on having chosen a profession which affords them such valuable opportunities to extend their knowledge, and to establish their virtue—To extend their knowledge, for it opens on every path of philosophical enquiry—To establish their virtue, for the love of truth is its supreme law, and good-will to man its perpetual object. And I think it may be proper, as no minor consideration for parents and the guardians of youth, at a period like this, when our free and exalted country has been scarcely more honourably adorned, by zealous and merciful endeavours to disseminate the blessings of Christianity, than shamefully

polluted by the pestilential and serpentine hissings of blasphemy and sedition, that I should add—to confirm their religion. It seems indeed to have been strangely imagined, that there is something in the nature of our profession, or of the studies in which we are necessarily engaged, that has a tendency to encourage scepticism and to favour infidelity—We repel the unfounded suspicion—We contend there is a manifest absurdity in supposing, that engagements which make us habitually conversant with all the vicissitudes of life, and pursuits, which are perpetually bringing before us the most exquisite proofs of the infinite power of the Al-

mighty, to create, to adapt, to combine, and to uphold, can have any tendency to make us call in question his power, or his purpose, to interpose, to illuminate, and to controul, at his pleasure. And who can seriously contemplate the numberless operations of the principle of life, all infallibly producing their several and peculiar results, in all the different tribes of the animal and vegetable worlds—who can behold the powers with which the human body is endowed, to repair its injuries, and to relieve its diseases, as far as the destinies of our nature will permit—who can survey the demonstrations of these facts which are contained in that match-

less Museum, and not be compelled to unite in the glowing language of our immortal bard----

" These are thy glorious works, Parent of Good,
Almighty! Thine this universal frame
Thus wondrous fair! Thyself how wondrous then!
Unspeakable! Who sitt'st above these heavens,
To us invisible, or dimly seen
In these thy lowest works; yet these declare
Thy goodness beyond thought, and power divine!"

THE END.

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