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.

SENECA, DE BENEF. LIB. IV. C. 30.

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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

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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 γυιοις 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 animalcules, 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.

Printed by J. BARFIELD, Wardour-Street,
Printer to the King's Most Excellent Majesty.

THE

HUNTERIAN ORATION:

Delivered in the Theatre

OF THE

ROYAL COLLEGE OF SURGEONS IN LONDON,

On the 14th Day of FEBRUARY, 1823:

BY

SIR WILLIAM BLIZARD, KNT.

PRESIDENT OF THE COLLEGE;

F. R. S.; F. A. S.; F. R. S. ED.; SOC. R. SC. GOTTING. CORRESP.;

HON. PROF. OF ANAT. AND SURG. OF THE

ROYAL COLL. OF SURGEONS IN LONDON;

AND

SURGEON to HIS ROYAL HIGHNESS the DUKE of GLOUCESTER,

AND TO

THE LONDON HOSPITAL.

London:

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HIGH-STREET, BOROUGH.

Printed by R. CARPENTER and SON, 16, Aldgate High-Street.

1823.

TO

BARON GEORGE CUVIER,

AND

SIR HUMPHRY DAVY, BART.,

HONORARY MEMBERS

OF THE

ROYAL COLLEGE OF SURGEONS IN LONDON,

WITH A PROFOUND SENSE

OF THEIR

SCIENTIFIC BENEFITS TO THE WORLD,

THIS ORATION IS INSCRIBED

BY

THE AUTHOR.

(COPY)

At a quarterly Meeting of the COUNCIL of the ROYAL COLLEGE of SURGEONS in LONDON, holden on Friday, the 11th Day of April, 1823.

The senior Vice-President, Mr. CLINE, reported, that the HUNTERIAN ORATION had been duly delivered, by the President, SIR WILLIAM BLIZARD, on the 14th Day of February last.

RESOLVED UNANIMOUSLY:

That the President be requested to publish such ORATION.

PREFACE.

THE Opinion, that Subjects for the HUNTERIAN ORATION *would soon be exhausted, is, in the Judgment of the Author, unfounded.*

If Inquiry were made for Topics of Discourse for the 14th of February, the HUNTERIAN *Collection would afford a boundless Choice of Subjects, in the Illustrations there displayed of the simple Laws of the animal Economy, in the Formation and Functions of Organs; and in the Signs of Aberration of Actions, from Injury or Disease. And if Inquiry were extended to the Nature, and the Order of Advancement of anatomical, physiological, and pathological Knowledge; and to Improvements in the Art and Science of Surgery, since the* HUNTERIAN *Era; such a Field of Objects would be presented as would embarrass Endeavours for Selection.*

To modify and embody the interesting Truths drawn from these Sources, without trespassing on the Provinces of the Professors, but with enlivening Influence on their Exertions, would prove a pleasant Exercise in the Hours of Abstraction from professional Toil.

These Sentiments would have guided the Author in the Adoption of Subjects for the late Occasion; had he not been seriously impressed with the Propriety of making an Effort, or at least of recording his Protest, against Practices, daily increasing, which, while they dishonour Surgery, retard the Progress of Improvement, and the Diffusion of chirurgical Knowledge for the general Benefit of the Community.

DEVONSHIRE SQUARE:

1 *May*, 1823.

HUNTERIAN ORATION

THIS COLLEGE is dedicated—under an humble Sense of the ordained Limitation of human Faculties—to the Elucidation of the Works of Infinite Power, manifested in animal Creation: to the Investigation of the Laws of Action, which Infinite Wisdom has impressed on the Organs of Animals, for their Preservation, and the various Purposes of their Existence: and, to the Improvement of that beneficial Appli-

cation of natural Knowledge, which Infinite Goodness has provided by the Healing Art.

A Commemorative Address, suggested by amiable Feeling, and instituted by public Spirit, for the Promotion of these Objects, annually enlivens the Energies of Members, and crowns the preceptive Exercises in this Theatre.

Accustomed to Obedience, on every Call of the College; and encouraged by the Experience of your liberal Indulgence; I have again ventured on the Task of celebrating the Honour of Surgery; and the Memory of Men, by whose Labours it has been advanced.

What is "the Honour of Surgery?"—Benefit to Mankind: and Distinctions, founded on this well-defined Basis, are its legitimate Expressions.

Upon this Principle, the Alterations in the titulary Style of the College, were allowed; and

this Token* of Royal Patronage, was vouchsafed, from a Conviction, as it was graciously declared, of the successful Endeavours of the College, for the common Weal.

Were the Eulogy of living Characters admissible in the Hunterian Oration; Flattery might, at some Period, assume the Place of Sincerity; and, thus, defeat the primary and pure Intention of the Founders. I must not, therefore, indulge your Feelings, and my own, by offering the Tribute of Praise due to those distinguished Persons, whose Representation of

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*INSCRIPTION:
engraven on the Mace.

Ex Munificentiâ
Augustissimi Monarchæ
Georgii IV.
Dei Gra: Britanniarum Regis &c.
Collegii Regalis Chirurgorum
Patroni Optimi
An: Dom: MDCCCXXII

Everardo Home Baronetto Primo Præside.

the Labours of this College, conciliated the Favour, and Munificence, of our just, beneficent, and sagacious, Sovereign.

Waving, then, every Expression of that Sense of Gratitude which is entertained of the Advancers of these Honours; we will proceed to the Consideration of the Benefits which they have signalized, and of the Way in which they are calculated to promote the best Interests of Mankind.

Causes, affecting, in any Manner, or Degree, the Progress of the Arts, and Sciences, in national Communities, if they comprehend in their Influence, the Healing Art, must be within the Scope of preliminary Examination, on this Occasion; especially if they have been dwelt upon, by commanding Abilities, in this Theatre.

It is necessary to plead these Considerations in Justification of myself: for the Authorities of this College are bound to maintain, that not any

Subject, foreign to, or unconnected with, its Objects, can, properly, be introduced in this Theatre.

Accordingly as a Person is swayed, from whatever Cause, in Favour of any Mode of Government, Occasions are taken to impress the Minds of others with a Belief, that the Form preferred is the best for the Promotion of the Arts, and Sciences: and thus the Healing Art has been presented, combined with other Distinctions of Knowledge, in Exaltation of Republican Establishments.

But unbiassed Reflection on the associated Circumstances of Discoveries, and Improvements, in Anatomy, and Surgery, through a long Series of Ages, would incline the Mind to Conclusions, very different from some which have been drawn from uncertain Premises.

The Fabric of Brain; the innate Disposition of Mind; and the corporeal Aptitudes; of Men;

are various as the Distinctions of human Knowledge.

Inquiry into the constitutional Frames, and Dispositions; and their correspondent Effects in the Actions of Men; will produce more Light on the Causes of important scientific Events, than can be derived from hypothetical Reasoning on the Influence of Governments.

Numerous Causes, affecting the Functions of Organs, may weaken the Expression of natural Disposition; and may, even, in some Degree, vary its Inclination: but, when possessed with strong impelling Power, not any Kind of Government, or external Influence, will move the Mind against its Spring of Action.—What extraneous Impulse could have diverted JOHN HUNTER from the Track of his scientific Career?

In Support of this Opinion, of the Force of

innate Disposition, Examples might be adduced from the Histories of People, of every Nation, every Form of Government, in every Age.

Independently, however, of that Disposition which may be pronounced uncontroulable, and which shines, principally, in the Walks of Science; there are Motives of Action which exert a general Influence on Mankind.

Avarice, and Desire of Distinction; are amongst the ruling Principles of Action. The former may exist under any System of Government: but the latter is, almost, peculiar to the monarchical Form; and is the Source of Energies which dignify human Nature.—The gracious Disposition of a Monarch is conspicuous, by the liberal Encouragement which he affords to the Exertions of his Subjects, in the various Departments of Art, and Science, and in the Cause of Humanity.

The generalizing Influence of Republics is

repulsive to the Force of Disposition; damps aspiring Spirit; and reduces the loftiest Conceptions to the Standard of Equality.

On the contrary, Governments, comprehending constitutional Monarchy, are productive of lofty Ideas, of emulative Energy: whence the Developement of Disposition; the various Distinctions in Society, acquired by Learning, Talent, and Improvement of the Arts, and Sciences: or conferred by the Sovereign, as expressive of national Benefit, and Honour; and such, we are assured, are the Grounds of that Distinction, which this College owes to the discriminating Bounty of its Royal Patron.

FRANCE had the Credit of bearing the Palm of Surgery, under her most despotic Dynasty.

HUNTER, unmoved by national Vicissitudes, calmly drew aside the Veil spread over animal Creation; expounded the Laws of organic

Structure, and Function; and that Doctrine of morbid Action, which has the Seal of Nature: and thus, raised, and fixed, in these Realms, the rational Character, and Rank, of Surgery.

But let the improved State of Surgery, in this Country, be contemplated without Exultation; as ministering to Humanity.

And may Generosity, Urbanity, and Truth, continue to characterize all the Acts of this College; without Distinction of Nation, or Government!

The magnificent Displays of Fruits of Learning, Science, and Industry, of an illustrious Philosopher in FRANCE, stimulate to Research, and determine the Pursuits of Naturalists, in every Part of the World.*

* BARON GEORGE CUVIER was elected *Honorary Member* of the Royal College of Surgeons in London, in 1818.

And Writings, with interesting graphical Illustrations, which have been eloquently extolled in this Theatre, prove, that in FRANCE, and other Countries, are Men diffusing Light in every Path of chirurgical Science; and exciting, with powerful Effect, the Energies of congenial Spirits.

But say, Candid Observers of the Progress of Natural Knowledge; who kindled this Spirit of Research; and gave correct Direction to its pervading Influence? Who instituted, in this Place, Tests of the Truth of Opinions, on the Structures, and Functions, of Organs; and the Effects of morbid Action?

Respected be the Memory of a distinguished French Anatomist, BICHAT; who, actuated by the Spirit of HUNTER, has been a successful Labourer in the Field of his Cultivation.

The Works of BICHAT exemplify the Force

of Disposition; the zealous Application of great Abilities, to the Objects of Pursuit; and the Exercise of a Mind, fruitful of Ideas, together with the Faculty of arranging them with felicitous Effect.

This Topic of the Influence of Governments on the Progress of scientific Knowledge, may be fitly closed—by invoking continued Blessings on this Land; and Perpetuity to its Constitution, and legal System of Government: protected by which, every Man may securely cultivate his Talents; whether in the ancient Seats of Learning, and Science, hallowed by NEWTON, BACON, and other Sages; or in the Metropolis, amidst the Works of HUNTER, and Scenes of Experiment, and Inquiry; or, remote from busy Enterprise, and the Calls of Distress, in quiet Meditation on the Pages in which he has illustrated the Laws of the animal Economy: and,

under the high Authorities of which constitutional System, this College, and the various other Institutions in this Kingdom, stand firmly in their legally established Rights, and Privileges.

From the Period of the Foundation of this College for the Reception of the HUNTERIAN COLLECTION,* Improvement in anatomical and chirurgical Science, has proceeded with a Rapidity, so much surpassing its former Progress, as to merit the special Consideration of Men, devoted to the Prosecution of Endeavours for the future Honour and Advancement of Surgery.

The Exercise of Intellect, as of the physical Powers, depends upon appropriate Excitement: and Action, when excited, is, in each Case, governed by inherent Disposition.

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* Vested in the College, in the Year 1799.

HUNTER awakened latent Faculties of Mind, by his demonstrative Energies: and Disposition impelled Pupils into his Paths of Knowledge.

What were the Collections of animal Productions, in the various Depositories of this Kingdom, before the Elucidation of such Objects by HUNTER? Gazing Stocks, for Admiration! Or at best Sources of Information, relating only to external discriminative Characters.

From the capacious Mind of one Man, principally, sprang the Benefits, and Honour, which we this Day celebrate.

Mr. HUNTER conceived the Plan of his Collection; with ardent Anticipation of the Benefits which it was to confer upon Mankind; by the Promotion of natural Knowledge, in Subservience to the Healing Art: and every Day more and more unfolds the Nature, Extent, and Importance, of the unexampled, and noble Design.

But to appreciate duly the Contents of the Museum of the College, they must be considered, not only as conducing to the direct Purposes of the Collection; but, also, as extending the Sphere of human Knowledge to all such Objects of this Globe, as are produced by animal Agency; or by extraneous Influence on animal Substances. Thus, the vast Assemblage of organic Remains; and the Specimens of testaceous, and various other animal Conversions, will be contemplated by Geologists, with philosophical Interest, and Delight.

Nor will Inquirers into the elementary Constituents of animal Matter, under its various Modifications, be here disappointed. The Results of accurate Analyses, directed, by Judgment and Experience, of vesical Calculi, of other animal Concretes, and Substances of numerous Distinctions, will illustrate Subjects, under

Inspection; and gratify the scientific Promoters of animal Chemistry.

Surgery, being founded on anatomical, physiological, and pathological, Knowledge, must necessarily, at all Times, have Relation, as to its Degree of Improvement, to the Extent of that Knowledge.

Until the Ideas of HUNTER were explained, by tangible Objects, comparative Anatomy had been little cultivated. The Light of Analogy had, consequently, been but faintly cast on the Organs of the human Machine: and, as the Knowledge of healthy Structure, and Function, was very defective; so, also, was that of Deviations, arising from external Violence, or morbid Action.

By Reference to the Hunterian Collection, these Imperfections became manifest: but, happily, Chasms of Ignorance were no sooner

discovered, than they were supplied by unerring Truths.

Explanatory Exhibitions of the Contents of the Museum, to Visitors, excited the Desire of Research: and thus the Hunterian Collection became a grand Conductor of the Spirit of HUNTER.

The Professors of the College felt its animating Influence; and, with increased Ardour, exercised their Talents.

Preceptors, in private Schools of Anatomy, and Surgery; and the Surgeons to the Hospitals in the Metropolis, with correspondent Zeal and Labour; pursued Experiment, and Inquiry, and with brilliant Success.

Thus did JOHN HUNTER lay the Foundation of a Design; destined to be a Monument of his own Excellence, and a Source of increasing Benefit, and Honour, to this Nation.

He did more: having prepared Demonstrations of the Elements of the Structure which he contemplated; he illustrated, by Writings and Lectures, their Accuracy and Truth.

The Superstructure is still rising, in due Proportion and Harmony; obediently to the Mind which conceived, and the Hand which began, the Work.

Although, for the Reasons assigned, the Eulogium of any living, individual Character, be inadmissible on this Occasion; yet in an Exposition of the Causes which have contributed to the Improvement of Surgery in this Country, to pass over without respectful Notice, the Exertions of those Members, who fill the executive Departments of the College, would be inconsistent with the governing Intention of the Oration; and unjust to the Feelings of faithful Observers of the Exercise of their pure Principles, and public Spirit.

What Tribunal can be more interesting in its Judgments, than that which decides upon the Qualifications of those, who are to be instrumental, in the Restoration of the right Functions of Organs, and the Preservation of Life, to Human Beings? Such is the Authority which is vested in the Court of Examiners; under which they direct the Stamp of Approval of Men, as fit, and capable, to exercise the Art and Science of Surgery.

The Court of Examiners have manifested a Conviction of their Responsibility to their Country, to the World! In various Ways they sustain the Labours of Preceptors, in their proper Spheres of Instruction: and, as the Advancement of elementary Knowledge, and Improvement in the Art and Science of Surgery, may indicate, they require of Students, proportional Time, Diligence, and Research, in the Acquisition of that Knowledge,

the useful Application of which will be the principal Employment of their Lives.

The able and humane Members of the College, in every Part of the British Empire, on Sea and Land, afford a gratifying Testimony of the beneficial Consequences, of well-directed Labours, and judicious Exercise of Authority on the Part of this College.

The favourable Effects of a zealous Devotion of Time, and Talent, by the Curators of the Museum, are variously expressed.

The Condition, and Order, of the Contents of the Museum, declare conservative Diligence: the Rules of Visitation, and Style of Explanation of its Objects, express a serious Sense of final Intention: the Ardour of Professors, and the instructive Influence of their Demonstrations, and Doctrines, proclaim superintending Solicitude: the daily Augmentation of the Contents of the Museum, are Signs of successful

Invitation to scientific Munificence: the important Addition of Books, appropriate to the Intention of an unfailing Library of Reference, opens prospective Views of Benefit from that Source of Information: the Prize-Subjects manifest Attention to Desiderata, in Anatomy, Physiology, Pathology, and Surgery—and the Publication of Transactions, consisting of interesting Observations, communicated by Anatomists, and Surgeons, from all Parts of the World; of Explanations, and graphical Illustrations, of Specimens in the Museum; and the Accomplishment of the elaborate Work of a descriptive Catalogue, not only of the HUNTERIAN COLLECTION, but also of the other numerous Contents of the Museum;* will complete the systematic Efforts which this College is making for the Maintenance, and Improvement, of chirurgical Knowledge.

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* Vide Appendix. 1.

The Honorary Medal, as the highest Expression of Respect for scientific Merit, which the College can confer on any Individual, will naturally suggest to the Council the Necessity of constant and accurate Attention to every Discovery, and Improvement, which may occur in the wide Field of anatomical and chirurgical Cultivation; with a View to the just Estimation of comparative Merit and Pretension. And if the future Adjudications of the Medal be made, as doubtless they will, with the same Judgment which has marked the first Award,* they cannot fail of awakening generous and emulative Sentiments, in all the Members of the College.

In the Consideration of the Causes which have contributed to the Advancement and Honour of Surgery, the ANATOMICAL SOCIETY, con-

* Voted to JAMES PARKINSON, on the 10th Day of January, 1823.

stituted of Persons who are, or have been, Teachers of Anatomy, is entitled to distinguished Regard.

By Communication, and Assimilation, of liberal and scientific Sentiments, it has greatly promoted anatomical and chirurgical Knowledge.

An Appeal of this Society to the good Sense of the Nation, on the Importance of anatomical Science to the Community; and, on the Difficulty of effectually promoting its Cultivation, and Improvement; has a particular Claim to the Attention of the Managers of public Hospitals, and other eleemosynary Institutions; and of the sagacious Magistrates of this Kingdom.*

The continual Accessions to the Fund of general natural Knowledge, and consequently of anatomical and physiological, Science, from

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* Vide Appendix. 2.

the ROYAL SOCIETY:* the liberal Acts of the Trustees of the BRITISH MUSEUM; of the Principals in high Departments of Government; and of the Directors of the Honourable EAST-INDIA COMPANY; towards this College —are Contributions to the Advancement of Surgery, and consequently to the Comfort of Mankind, above my Praise.

Thus far we have breathed only Congratulations, on the State of Surgery, and on the just Estimation of the chirurgic Character, in this Country.

But the commemorative Design would be imperfect, were it confined to the Consideration of Occasions of the Improvement and Honour of Surgery; and not to comprehend a Review of Causes of opposite Tendency, and Effect.

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* Sir HUMPHRY DAVY, Bart. Pr. R. S. was elected Honorary Member of the Royal College of Surgeons in London, in 1821.

Humanity claims the special Regard of Men professionally devoted to her Service; and the Advocacy of all who sympathize with the Sufferings of their Fellow-Men.

The British Philanthropist has at Length prevailed: and the inhuman Traffic in Slaves is abolished!

If Congruity of Sentiment be expressive of just Principles of Action, in Assemblies of Men; why are not the numerous, uninformed, People of this Country protected against the Arts, the Cruelties, the sordid Wiles, of Impostors who assume the Title of Surgeon?

Whence this Apathy in Men in whom have shone forth, Sentiments, and Feelings, most honourable to human Nature?

Can any Condition of Man present him a stronger Claimant to Commiseration, and Protection, than when he is weakened in Body, and

Mind, and bereft of Judgment, by Anguish, from Injury, or Disease?

Yet Men, destitute of Pity, of moral Principle, and of chirurgical Knowledge, are suffered to prey, with barbarous Indifference, on the Lives, and the Property, of their afflicted Fellow-Creatures.

The Council of this College, from certain Knowledge, and correct Judgment of these Facts, respectfully represented them to the Legislature, with Propositions for the Removal of the national Disgrace. Their Motives, individually, and collectively, were pure, and disinterested; the Provisions which they respectfully proposed were, consequently, simple and liberal.*

This College, of ancient Origin, was incorporated, for the Common Weal, under its present Title and Character, by our late revered Sove-

* Vide Appendix. 3.

reign; and, his present excellent Majesty has been graciously pleased, to stamp, with his Royal Approbation, the Success of its Exertions. Under the Auspices of the College, Resort may be had, in every Town and Village, to Surgeons, examined, and approved, for their Fitness and Capability. But these Provisions, daily Experience proves, are insufficient to protect Weakness and Credulity against the Arts of Imposture.

Frequently is the College censured for not exercising Powers—supposed to be possessed—for the Suppression of a Grievance, most adverse to the Improvement, and to the Honour, of Surgery.

Say, then, generous Senators, prompt Instruments of Succour to distressed Human Beings in the remotest Parts of the Globe; say, shall such Disgrace remain a Cloud on the Character of this Land of Charity?

The Analogy of all Nature sanctions the practical Application of the Principle, of a Centre of Union for Minds engaged in similar Pursuits; producing an harmonious Movement of Ideas for the common Benefit.

If this College be the Vinculum of the Hospitals in the Metropolis, connecting them, by its various Functions, into systematic Pillars of the useful Fabric of Surgery; whatever Conduct may affect such established Order, must be injurious to the Designs of the College; consequently, to the regular Arrangement of Hospital-Education, and to the Interests of the Community.

Have Teachers, and Surgeons to Hospitals, meditated the Separation of the Art, from the Science, of Surgery? Have they gravely considered the Acts which tend to it; the Consequences to Society of such a Disunion? Have they reflected on the limited Benefit

which accrued to the Community from Surgery, and its low Degree, in the Scale of popular Estimation, at a Period, when the Jargon, called Science, was assigned to one Order of Men; and the irrational, operative, Part, to another, of uninformed, and dependent Minds? Have Teachers, and Surgeons to Hospitals, at this Day, less Knowledge of the Structures, Functions, Diseases, and Imperfections, of the Organs of Sense, and of other important Parts of the human Fabric, than Surgeons of former Times? Or are they less endued with proper Faculties, than Men of little Experience, and of circumscribed Information? Are local Benefits to be put in Competition with the liberal System of Education of Pupils in Hospitals, and consequent general Advantages to the Public? Shall not the scientific Principles, and the manual Exercise of them, in Surgery, continue to be united in the same Person? Can

the combined Qualities of Judgment, and operative Skill, be employed, so efficaciously for the Improvement of chirurgical Knowledge, as by Surgeons, surrounded by Pupils, in the Wards and Theatres of Hospitals? Should not the public Hospitals be adequate to all the humane, and preceptive Purposes, for which they were established?

Is there any Doubt as to the Intentions of those benevolent, and pious, Persons, who founded Infirmaries, as Asylums for indigent People, disabled by Injury, or Disease; and as Schools of Instruction in the Healing Art? Are these Institutions maintained and regulated, in the liberal Spirit of the Founders, with a due Regard to the Advancements of Science?

What would have been the Sentiments, on these Subjects, of the illustrious Dead, who had just Notions of the extensive Utility of Hospitals in the Metropolis; and of the genuine

Dignity which belongs to them, and to the Administrators of the Benefits, for which they were designed? Of CHESELDEN, SHARPE, ELSE, WARNER, WATSON, HAWKINS, POTT, and HUNTER?

The Economy of Hospitals, especially of those in the Metropolis, has such interesting Relation to the Design of this Ceremony, that a further Remark on the Subject of them may not be improper.

The Credit of an Hospital, in the Minds of enlightened People, consists in a small degree only in its Riches: for these may be abundant, and managed with Fidelity, yet the Institution may be low in the Estimation of Men of Science, and comprehensive Benevolence.

That Character of an Hospital, which should be the Object of Attainment and Maintenance, because expressive of its extensive Utility, is derived, principally, from the scientific Exer-

tions in a regular Line of Succession of its learned, humane, and honourable professional Officers. Their Endeavours should, therefore, be supported by Persons of liberal Sentiments, whose Education enables them to judge correctly of all which relates to the Cultivation and Improvement of the Healing Art.

Such is human Nature, that from Amiableness of Disposition may proceed Acts, not consistent with strict exemplary Propriety. Whence appears the Importance of considering the Influence, which the Actions of one Man may produce on the Conduct of others.

Mr. HUNTER possessed a Heart so susceptible of grateful and generous Impressions, that he was sometimes induced to allow the Sanction of his illustrious Name, without due Consideration of its Weight with professional Characters, and in the public Estimation; and thus he became, an unconscious Promoter of the

Designs of interested and artful Persons; and a dangerous Exemplar.

The Interest of Science, the Honour of Surgery, and the general Good, require, that Men, who, from Vanity, Avarice, or other base Motive, artfully endeavour to produce on the public Mind an Impression of extraordinary, and exclusive chirurgical Knowledge, and of wonderful Skill in the Exercise of it; far from receiving Sanction and Encouragement, to their own immediate Advantage and Promotion; or to any Scheme, which, for their own Ends, they desire to advance; should meet, from honourable Men, repulsive Contempt.

Having, with painful Feeling, performed the Duty of Animadversion on such Proceedings, and Conduct, as are calculated, in their Consequences, to dishonour Surgery; let us turn to the Celebration of the Examples of Men, whose

Labours have been successfully directed to its Advancement, and eventual Honour.

The Retrospect of Benefits is darkened by Regret, when we recollect, that the principal Authors of them, were, as Yesterday, living Ornaments of this College; warmly engaged in its useful Designs; amiably conducing to mutual Comfort; reciprocally communicating and cultivating the most honorable Feelings, and Sentiments of our Nature; and always, with perfect Union and Harmony, joining in Resolutions, the Result of deliberative and disinterested Judgment: nor can, nor should the Reflection be suppressed, that, within a short Time, in uncertain Succession, we shall be numbered with our Friends in the Grave.

Let us then employ the remaining Moments in this Place, in the most useful and gratifying Manner in our Power; by presenting, for Imi-

tation, the excellent Examples of our departed Brethren; and by rendering to their Memory, the Tribute of Gratitude and Respect.

The Labours, and Acts, conducive to the Advancement of Surgery, for which Men are entitled to honourable Record in the Annals of the College, and to Memorials of Respect on this Occasion, are various.

Diligent Research; judicious Experiment; accurate Observation; and unreserved Promulgation of Discovery, or Improvement; constitute a Character in Surgery worthy of exalted Eulogy.

Benefactors to the Museum, to the Library, or to the general Purposes of the College, will ever be commemorated, by the faithful Annalist, in Terms of Gratitude and Respect.

The Memory of Contributors to the Transactions of the College, will necessarily be hand-

ed down, with the Accession of due Honour, by the Works of their own Skill and Research.

The Duties of the College are multifarious, and toilsome; and Men, who have zealously employed their Powers and Faculties in its administrative Departments, will be remembered by the Fruits of their meritorious Services.

And, if ever a Person, beloved for his Disposition, Endowments, and Learning, shall decline a Station of Distinction in this College, from conscientious Feeling, relating to some corporeal Faculty; let him be honoured, as possessing a Delicacy of Principle, and a Rectitude of Sentiment, which do not always actuate the Conduct of public Men.

Before we offer our Tribute of Respect to the Memory of Persons, whose Pursuits immediately connected them with the College, we

naturally turn to a Benefactor, who, in his extraordinary Ardour of Research, knew not any Distinction; but embraced the Interests of all Institutions, intended for the Promotion of Science, and useful Knowledge.

The Eagerness, with which the Friends of Science and Humanity have stepped forward, to commemorate the Virtues and Talents of Sir Joseph Banks, suggests to us the only Offering which grateful Minds can now make to his Memory — the silent Homage of Respect! The Extent and Universality of his Labours, directed to the Elucidation of every Department of natural Knowledge, have been expressed, in Terms of generous Praise, by the brightest Ornaments of the Sciences which he so richly Adorned.

The illustrious Humboldt, after reviewing the Difficulties and Losses, which he had sus-

tained, relieves his Mind, by the noble Consideration of the essential Services rendered to him by SIR JOSEPH BANKS; who, he says, "amidst the political Agitations of Europe, laboured, without Relaxation, to confirm those Bonds, by which the Learned of all Nations are United." *

We pass from him, who thus moved the scientific World, to the Celebration of Persons, whose Labours and Benefits, although confined immediately to Objects of the College, are, in their Consequences, interesting to all Mankind.

Regularity, and general Agreement, in the Rules of Administration, of the numerous Corporations in this Kingdom, necessarily contribute to the Preservation of Order in the national Community.

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* "Voyage au Nouveau Continent." Introduction, Page 11.

Accordance is especially necessary, in the Government of Establishments, intended for the Cultivation and Improvement of natural Knowledge, and of its Application to the Healing Art. The Proceedings of such Bodies should so harmonize, as constantly to conduce to the common Object; yet not interfering with distinct Functions, or the Scale of accustomed Precedence.

These Observations were suggested by the Recollection of the Names of some late Members of the Council of this College, who were diligent in framing, and strenuous in supporting, its Statutes and Ordinances.

Sir Charles Blicke regularly attended the Calls of Duty, at the College. He possessed a quick and accurate perceptive Faculty; whence his Opinion was highly valued, and it was given with independent Spirit.

SIR CHARLES was a consistent Benefactor. Although, from the Beginning of the collegial Establishment, a Library of Reference was a declared Part of the System adopted for the Communication of scientific Knowledge; and notwithstanding Invitations to Members of the College and other Persons, to promote that Object; until SIR CHARLES became a liberal Donor of Books, the Appearance of the Library was poor indeed! SIR CHARLES manifested to the last his uniform Disposition to keep alive Attention to the Library; by the Bequest of a Sum, towards a Fund, intended solely for the Purchase of Books.*

The Records of the College, particularly the Reports of the Boards of Curators, declare the noble Additions of Books, which have since been made to the Library. Reflection on the

* SIR CHARLES BLICKE, Knt. was elected Assistant, in 1791.

Benefits thence accruing to Learning, Science, and the Labours of Humanity, will cheer the Hearts of the Donors all their Days: and the Memory of them will be handed down, and ever gratefully cherished in the Minds of those, who value and would promote useful Knowledge.

Sir James Earle was prepared, by natural Endowment, and literary Attainments, to pursue the Path of his illustrious Master, Percival Pott; and to examine, with useful Effect, the Sources of that Light, by which he had been guided.

The Principle, of inducing inflammatory Action, and its Consequences, by various Fluids, established, by Sir James, in its Application to one Description of Case, proves of practical Utility on other Occasions.

Sir James has faithfully expounded the

Doctrines of his Preceptor; and enriched the Text with divers valuable Observations, from his own Experience.*

Mr. Long possessed great natural Gifts, high Attainments; and a Disposition, meditative, and patient in the Pursuit of Knowledge: fit Qualifications in a Legislator of Statutes for the Government of the College! And he exerted all his powerful Faculties, in the joint Labour of constructing a Code, which is characterized by its Simplicity, liberal Spirit, and experienced Efficiency. A Consideration which should ever guard it from the Evils of Precedent; whether introduced by Infraction, or Relaxation, or Vacillation of Judgment.

The Annals of the College commemorate his Munificence, to the Museum, and to the Library; in his Life, and by testamentary Remembrance.

* Sir James Earle, Knt. was elected Assistant, in 1789.

The constant, and warm Support of the College, by a Man of such Understanding, and Integrity, is its highest Panegyric, and most rational, and persuasive Recommendation, to sagacious and beneficent Persons, who may have the Power of promoting its public Objects.*

The correct Performance of the laborious Duties, confided to Mr. KEATE by the SOVEREIGN; and the public Benefits derived from them, are not Subjects of Eulogy on this Occasion. But his Abilities were successfully employed in every Department of the College; and Mr. KEATE ranks highly in the Catalogue of its Benefactors.

The Library expresses his Acumen, and Taste, by the Manifestation of Utility, combined with Grandeur of Effect.

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* WILLIAM LONG was elected Assistant, in 1789.

The Memory of Mr. KEATE will be holden in grateful Recollection.*

Professor WILSON possessed great Talent; and extensive Knowledge, acquired by exemplary Diligence and Labour. His Abilities were signally displayed in this Theatre. He bore modestly his truly deserved Honours: and, had his Mind been less susceptible, and had he been decreed Length of Days, his unassuming Merit would, doubtless, have been more and more conspicuous.†

The Recollection of Mr. CHANDLER awakens Sentiments, and Feelings, most honourable to his Memory.

A Mind, fraught with every Advantage of Education, and Study; and a Disposition most

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* THOMAS KEATE was elected Assistant, in 1793.

† JAMES WILSON was elected Assistant, in 1817. The excellent Lectures, delivered by him in the Theatre of the College, and since published, should be attentively read by every Student in Surgery.

amiable, constituted his exemplary Character.

His Abilities, and Suavity in the Exercise of them, must have made a lasting Impression on the Mind of every Member of the Council.

Mr. CHANDLER constantly, and most beneficially, attended his Duty, in the Committee for framing a System of Bye-Laws, and Standing Orders: the strict Observance of which, he, afterwards, invariably supported. Upon every Occasion, he conscientiously maintained the Dignity and Welfare of the College.*

Mr. HEY was an active, successful, and, thence, a distinguished Cultivator of the Art and Science of Surgery. His able and interesting Biographer has explained his scientific Character and Merits; and has rendered that Honour to his Memory, which, otherwise, would, on this Day, have been attempted; with

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* GEORGE CHANDLER was elected Assistant, in 1791.

equal Sentiments of Esteem, and Feelings of Respect; but by very inadequate Abilities.*

† The Design of OMNISCIENCE in the Allotment to Men of different Spans of Life, is beyond human Comprehension.

Let us then, resignedly, devote a Moment to the Contemplation of those preceptive Faculties which were eminently displayed by a brief Sojourner on Earth.

The intelligent Pupils of that ancient School, where CHESELDEN, and SHARPE, advanced the Honour of Surgery, will bear feeling Testimony to the ample Fund of anatomical and physiological Knowledge, the accurate Skill, the demonstrative Perspicuity, the placid and persuasive Manners of their late beloved Preceptor.

His acknowledged chirurgical Abilities, and Zeal in scientific Researches, impressed the

* Mr. HEY was admitted a Member of the Corporation of Surgeons, in 1768.

† Omitted in the Delivery of the Oration.

Board of Curators, and the other Departments of the College, with the Hope and Expectation, that in him Surgery would long experience a diligent Promoter, and distinguished Ornament—honoured be his Memory!*

The Death of Dr. JENNER will be lamented by all the World. His Memory will be eulogised to the End of Time. The Extent of the Benefits of his Discovery is yet only in Anticipation. The influential Principle of Vaccination may lead to a Knowledge of analogous Changes in the human System. It has opened a new Field for Discovery, to Investigators of morbid Actions, and prophylactic Agencies.

Dr. JENNER was educated to Surgery; and was a diligent Pupil of Mr. HUNTER. He enriched natural Knowledge with many curious Facts, and Observations: several of which were the Results of Experiments, performed at

* HENRY CLINE was admitted a Member of the College, in 1804; and died in 1820.

the Suggestion of his Friend, Mr. HUNTER; as recited in his Work on the Animal Economy.*

Whoever shall contemplate the Force of the Example of Mr. HUNTER, in his unwearied Devotion to Experiment, and Inquiry; and the friendly Intercourse which subsisted between Dr. JENNER and him; will be led to admit, that Mr. HUNTER awakened, and sustained, in his Pupil a Disposition to active Research, after Facts relating to extraneous Influence on the Organs of the Human Body; and, by a natural Chain of Reasoning, that his inestimable Discovery was probably a Consequence of Energies, from a Disposition thus excited, which, otherwise, might ever have been dormant.

The Dejection of Science, on this Occasion, may be diminished, and the Hopes of Humanity may be cherished and maintained, by the

* Vide Appendix 4.

Declaration, that the Council of this College, are unshaken in their Confidence of the Efficacy of Vaccination, in exterminating Small Pox: and, by the Announcement of their Opinion, that the Man who should keep alive Small Pox by Inoculation, would be a guilty Cause of Misery, and Death, to human Beings; and, that he would, consequently, be a Disgrace to that Profession, the primary Objects of which are, Prevention of Disease, and Preservation of Life.*

Having congratulated this honourable Assembly on Causes which have favoured the Advancement of Surgery; having lamented Events adverse to its Improvement, and general Utility; and having expressed the Homage due to the Memory of many departed Cultivators of those Fields of Science, which are the proper Domains of the Members of this College: your Attention is, finally, claimed, to a few general

* Vide Appendix. 5.

Remarks, on the Labours of that Philosopher, the Light of whose Discoveries is reflected by the Pages of every modern, and esteemed Work, on the Healing Art.

And what can be more laudable in the professional Character, than a Disposition to derive, and acknowledge, Information from his unfailing Sources? To what other Founts of Knowledge, indeed, can Inquirers so properly resort for elementary Truths? For, what Subject of Injury, or Disease, has not some Relation to the circulating Blood; to absorbent Function; to muscular Agency; to the Offices of the Stomach, and other Organs of Digestion, and Assimilation; to the electric Principle in Animals; to animal Heat; to the vital Energy of Brain, and Nerves; to sympathetic Movements; to original Disposition; to morbid Derangement; and to harmonizing Energies?

Presumptuous, indeed, would be the Man, who should maintain a positive Opinion on any Principle in Surgery, without the Knowledge of the Facts, relating to it, which have been recorded by HUNTER: without an Acquaintance with all his Writings, and Demonstrations, since the various Subjects of them reflect Light on each other; expressed by his Facts and Observations, on Wounds; on Resuscitation; on the Communication of Variola; on Inflammation in the venous System; on syphilitic Action; on Aneurism; and by his Remarks on various other Topics, explanatory of animal Processes, under morbid Influence, or extraordinary Excitement.

And what Naturalist, who should exalt his Mind to the Comprehension of general animal Existence, and its Connexion with other Productions of the terraqueous Globe; would advance on such a wide Range of Inquiry, without the

Acquisition of those Truths, which would illuminate every Step in his arduous Journey of Discovery? without previous Meditation upon the Series of Demonstrations in the HUNTERIAN Collection; which exemplify the Formation of animal Solids, and Fluids; the Agencies exerted in the Support of Life; the Organs which connect Animals, by different Relations, with external Objects; the organic Provisions for the Continuance of the Species of Animals; and without a Knowledge of the numerous other Illustrations, spread through the Museum, of the Structure and Economy of Animals, which under their various Changes of Condition, conduce to the Ends for which they were created.

Informed from these Sources, and moved by the genuine Spirit of Inquiry, he would proceed, with Confidence and Delight, in his philosophical Career.

Were the Laws of the animal Economy, as expounded by HUNTER, and his Doctrines, studied, as primary Exercises; the Works of ancient, and even of late, Writers, would be understood to more general and useful Effect.

"These Laws, and Doctrines, extended "through voluminous Pages, if reduced into "aphoristical Form, would instantly impress "the Mind with their Simplicity, natural "Dependence, Beauty, and Truth."*

The HUNTERIAN Collection; the other Contents of the Museum, in correspondent Arrangement; the Care, and Application, of the Whole, by Means the most conducive to the Objects of the College; are amongst our immediate, and imperative, Duties.

But this Edifice, erected with the utmost

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* Oration 1815, Page 77.

architectural Adaptation to its Purposes, is not sufficiently capacious for the useful Display of all its interesting Contents. The unarranged Stores, if disposed for useful Observation, would nearly equal the Preparations now exhibited to the Sight, and Mind.

But the Attention of the Council is directed to this Object: and the Energies and Resources of the College will on this, as on every other Occasion, be guided by public Spirit.

In the planetary System; and in the physical World; a Principle is ordained, to prevent Aberration; and thus, to maintain Regularity, and Order.

May the Influence of Hunterian Orations, be so directed, as to prove corrective of rising Error, in the Pursuit of natural Knowledge, and in the Exercise of the Healing Art!

Mr. HUNTER, by his unequalled Collection has been a forcible Instrument, of elevating Minds, in Search of physical Truths, to the sublime Contemplation of the CREATOR of the Universe!

The principal Endeavour, this Day, has been, to concentrate, and direct to your Minds, some of the widely spread Rays of the Luminary, HUNTER: to you, respected Brethren, belongs the more important Work, of multiplying, and reflecting them, by Labours of Science, to the Honour of Surgery, and to the Lustre of his Memory!

Gentlemen:

The Theme of the Hunterian Oration is, "The Honour, and Advancement of Surgery." Its Honour has been defined; its Advancement, thence, understood: and highly

have they been expressed, and promoted, by Royal Patronage, and Munificence.

What Act will satisfy expectant Gratitude, on this memorable Occasion? What is decorous on the part of Subjects, in Token of their Sense of Benefits conferred upon Science, and upon Mankind?—Consonantly with the Practice of Men of noble Sentiments, from an early Period, to place a Bust of the Sovereign whom they venerate, appropriately for grateful Contemplation. The Council have, accordingly, by gracious Permission, obtained a Bust of the most illustrious Patron of this College; executed by that Artist, who penetrates the very Recesses of Heart, and Mind, and embodies their Expressions: and it does Justice to the Benignity of the most august Monarch, GEORGE the FOURTH; whose bounteous Encouragement, of Learning, of the

Arts and Sciences, and of Works of Humanity, is conspicuous, in the successful Labours, and the Happiness of his Subjects, and in the Glory of the Nation!

APPENDIX.

(1.)

THE Contents of the Museum of the College, with Reference to the Subject of a descriptive Catalogue of them, may be classed, generally, under the Heads of Hunterian Collection, and of Donations from Members of the College and from other scientific Persons.

The Preparations in both these Classes, are illustrative of the animal Economy, in the perfect Condition of Organs for the Performance of their ordinary Functions; and in their Structures and Actions altered by morbid Excitement.

To harmonize the Preparations of the Hunterian Collection with those from munificient Individuals, and to render the whole as conducive as possible to the Ends for which the College was founded, have been and are Objects of the incessant Attention of its executive Departments.

All the Duties of the College, relating to the Hunterian Collection, might soon be fulfilled: but the Boards of Curators have toiled, in the Spirit which suggested the Obligations, with Views far beyond what they require.

The Board of Curators are pursuing the Object of a comprehensive Catalogue, under a due Sense of its Importance; since, with other great Benefits, it will for ever secure those which result from the present Accuracy of explanatory Exhibition, and which no Catalogue should be allowed to supersede.

(2.)

(Copy.)

The undersigned, who are or have been TEACHERS *of* ANATOMY, *respectfully represent to the* ROYAL COLLEGES *of* PHYSICIANS *and* SURGEONS, *that, in their opinion, the following subjects should be submitted for consideration to the* GOVERNMENT *of the* COUNTRY, *its* MAGISTRATES, *and the* DIRECTORS *of* ELEEMOSYNARY INSTITUTIONS.

1. MEDICAL or chirurgical knowledge has never been acquired and augmented, but in proportion as Anatomy has been practically taught and studied.

2. The importance of medical and chirurgical knowledge, although universally admitted, is never clearly understood, nor strongly felt by individuals, until such knowledge be urgently required. A few instances will sufficiently illustrate this truth.

The industrious parent of a numerous and happy family may, even in the vigour of life, in consequence of neglecting the faulty actions of some important organ of his body, suffer disease to become established, and may thence prematurely perish, leaving the individuals of his family a burthen to society, and an affliction to each other: whereas, an intelligent Physician could have warned him of the dangers of such neglect, and have shewn him how these errors, the precursors of incurable disease, might have been corrected and their fatal consequence prevented; yet no Physician could do this without a knowledge of the structures and offices of the several organs which compose the human frame; for the knowledge of the healthy actions of organs can alone enable him to distinguish and correct those which are unhealthy, and which, if continued, must prove fatal.

A man having that common infirmity, a rupture, might revile those who dissect the dead body; but, when the protrubed bowel shall be strangulated, his rupture, if left to itself, must bring him to a certain and most painful death: yet he might be relieved from agony and destruction by a simple and secure operation, when performed by a person conversant with Anatomy; though dangerous in the extreme when attempted by hands not sufficiently practised in dissection.

3. From conviction of the importance of anatomical knowledge to health, maintenance of life, and the happiness of the community, the legislature or police of almost every other civilized country has provided means for teaching Anatomy; whilst in this, the Teachers of so important a science are obliged to depend upon persons of doubtful character for the necessary supply.

The Colleges of Physicians and Surgeons properly require, that candidates for admission, as members, should have frequently dissected, and should be perfectly acquainted with the situation, structure, connexions, and functions of every part of the human body; and must, therefore, as they regard the "common weal" for which they were instituted, deeply regret that the opportunities of obtaining such requisite information are very deficient.

4. There are in this, and in every country, many persons who die without relatives or friends surviving them; and, if the Public could be reconciled to their remains being

made the subjects of anatomical investigation, the disinterment of those of others, for this purpose, would never be necessary.

5. Whilst, however, this necessity exists, it is surely wise and benevolent to suppress the Publication of the discovery of an act which may painfully agitate the minds of individuals, but which, in the present state of society, is indispensably necessary to the general good.

The disinterment of a body cannot, it is presumed, be considered legally as more than a trespass; and in a trial for this offence, in which its necessity was argued before LORD KENYON, in the Court of King's Bench, his Lordship sentenced the offender merely to a small fine without any imprisonment; yet some magistrates, influenced by a natural feeling, and without reflecting on the necessity of the deed, have punished persons convicted of this offence with the utmost rigour of the law.

[Signed.] WILLIAM BLIZARD *(Chairman of the Anatomical Society.)*

MATTHEW BAILLIE
JOHN ABERNETHY
T. J. ARMIGER
CHARLES BELL
B. C. BRODIE
HENRY CLINE
EDWARD COLEMAN
ASTLEY COOPER
H. T. FRAMPTON
JOSEPH HENRY GREEN
JOHN HAVILAND
R. C. HEADINGTON
EVERARD HOME
CHRISTOPHER PEGGE
JOHN SHAW
EDWARD STANLEY
H. L. THOMAS
JAMES WILSON

Members of the Society.

(Copy.)

The COMMITTEE, *appointed by the* COURT *of* ASSISTANTS, *on the 7th Day of April*, 1813, *to take into Consideration, and direct an Application to the* LEGISLATURE, *for preventing ignorant and unqualified Persons from practising as* SURGEONS.

SIR JAMES EARLE, KNT.	SIR WILLIAM BLIZARD, KNT.
MR. LONG,	MR. CLINE,
MR. CHANDLER,	MR. NORRIS, and
SIR CHARLES BLICKE, KNT.	SIR EVERARD HOME, BART.

Final REPORT *of the* COMMITTEE *to the* COURT *of* ASSISTANTS.

THE COMMITTEE, deeply impressed with the deplorable Truth, that ignorant and unqualified Persons are not restrained by Law from practising as Surgeons; and that, from the Want of such Restraint, the Health of His Majesty's Subjects is greatly injured, and the Lives of many are destroyed: influenced, at the Time, by Considerations of the Fitness and Propriety of the Propositions contained in the former Bill: convinced of the complete Adequateness to the Ends designed, of the Provisions in the Bill lately submitted to the Legislature: and undismayed by timid Suggestions of Danger to the Finances of the College, while Benefit to all the Inhabitants of the United Kingdom was the grand Object in View: the Committee entered upon, and proceeded in, the Discharge of the Duties of their important Trust with Alacrity and favourable Expectation.

The Minutes of their Proceedings have been regularly presented to the Court; and may at any Time be resorted to for Information, with entire Dependence upon their Accuracy.

The Occurrences on the Occasion of the former Bill extended the Views of the Committee, and directed their Judgment in the framing of that lately introduced.

The Principle of this Bill, the Committee maintain, is simple, dignified, and obvious, *the Rescue, of the People from the Ravages of ignorant and unprincipled Pretenders to chirurgical Knowledge;* and, consequently, *the due Encouragement of qualified Surgeons:* that the Clause, relating to examined Surgeons practising in Ireland, is founded in Justice: and that the Provision concerning Men-Midwives is defensible, as the only Expedient, for the good Purpose intended, admissible by the College; and to the Adoption of which the Committee were urged by competent Judges on the Subject, and by Motives of Humanity.

The pure, liberal, and public Design of the Committee, according to the Intention of the Court, has, however, been met by Opposition originating in contracted and interested Considerations. But, although this be an incontestable Fact, it cannot be dwelt upon without implicating Men, who, notwithstanding Appearances, may have been deceived, and may have acted from fair Intention.

The Committee were not ignorant of the Sources, nor of the Motives, of the intended Opposition; but, as the former were generally known, and the latter were plainly unworthy, little Doubt could be entertained, that it would be successfully combated by the Penetration and Abilities of those Persons who had undertaken to explain and advocate the Principle, and Provisions of the Bill.

The Fate of the Bill is before the Public; but the Merits of it have not been explained. The proper Judges of the Nature and Magnitude of the Evils actually suffered by the Community, and of the simple Remedy proposed for the future Prevention thereof, have not been heard. Upon this Occasion, Ignorance, Misrepresentation, Prejudice, and the Influence of private Interest, have swayed against public Spirit, Truth, and Humanity.

The Committee are happy in the Reflection, that the Cause confided to them by the Court has been just and honourable; that it has been prosecuted with liberal and unreserved Communication; and they confidently hope, while the Functions in the several Departments of the College shall continue to be performed with Energy, and Correctness; that, in Proportion as the late Proceedings shall obtain Publicity, and be properly understood, the College will necessarily rise higher and higher in Dignity and general Estimation.

The Committee were desirous that, with the Record of their Proceedings, should be handed down their governing Sentiments upon the Subject of their Trust.

They gratefully acknowledge the Authority and Support which they have constantly derived from the Court, and now respectfully resign their Trust; with perfect Consciousness of having always employed the Powers vested in them, in Endeavours to promote the Object of the Charter of Incorporation, "*the Common Weal of the Kingdom*," and thereby the Honour, Dignity, and Welfare of the College.

LINCOLN'S-INN FIELDS:
APRIL 16*th*, 1818.

(4.)

Sir EVERARD HOME, in his Life of Mr. HUNTER, prefixed to Mr. HUNTER'S "TREATISE ON THE BLOOD, &c." Page 21, says —

"Dr. EDWARD JENNER, of Berkeley, boarded in the House of Mr. HUNTER, in 1770 and 1771; and lived in Habits of Intimacy with him till his Death."

Mr. HUNTER in his Work of "OBSERVATIONS ON CERTAIN PARTS OF THE ANIMAL ECONOMY," Page 112, says—

"As I was unable to procure Hedge-hogs in the torpid State, to ascertain their Heat "during that Period, I got my Friend, Mr. JENNER, Surgeon at Berkeley, to make the "same Experiments on that Animal, that I might compare them with those in the Dor-"mouse; and his Account is as follows, &c."

Page 156, "*Observations on the Wolf, Jackal, and Dog.*"

"The following Account from Mr. JENNER, of Berkeley, to whom I gave a second "Remove, viz. three Parts Dog, is very descriptive of this Propensity, &c."

Page 195, "*Observations on Digestion in the Hedge-Hog.*"

"The Subject of Mr. JENNER'S third Experiment on the Heat of that Animal, &c."

Page 233, "*Intestine of a Hog, with pellucid Cysts.*"

"It was sent to me by my Friend Mr. JENNER, Surgeon at Berkeley, who informed "me, that this Appearance is found very frequently upon the Intestines of Hogs that "are killed in the Summer Months."

(Copy.)

WE, the PRESIDENT, VICE-PRESIDENTS, and COUNCIL, of the ROYAL COLLEGE of SURGEONS in LONDON; deeply impressed with the many fatal Instances of Small Pox which daily occur in the Metropolis, and in various Parts of the Kingdom; assured that such Events are, in a great Degree, Consequences of the Support and Propagation of that Disease by Inoculation; and, unshaken in our Confidence of the Efficacy of Vaccination in exterminating Small Pox: from a Sense of Duty to the Community, hereby renew the Engagement, entered into by the Court of Assistants in the Year 1813—*not to inoculate Small Pox; but to pursue, and to the utmost of our Power promote, the Practice of Vaccination.*

And we earnestly recommend, to all the Members of the College, similar Engagements; convinced, that the entire Extinction of Small Pox would be the happy Result of the Suppression of Inoculation of that Disease, and the universal Adoption of Vaccination.

EVERARD HOME — PRESIDENT.

WILLIAM BLIZARD, HENRY CLINE — VICE-PRESIDENTS.

G. CHANDLER	JOHN ABERNETHY
T. FORSTER	WM. LUCAS
I. HEAVISIDE	ASTLEY COOPER
DAVID DUNDAS	ANTHONY CARLISLE
WM. NORRIS	T. CHEVALIER
I. ADAIR HAWKINS	JOHN GUNNING
F. KNIGHT	H. LEIGH THOMAS
LUDFORD HARVEY	R. C. HEADINGTON
WM LYNN	ROB. KEATE.

LINCOLN'S-INN FIELDS:
the 12th Day of April, 1822.

R. CARPENTER and SON, Printers, 10, Aldgate High-Street.

AN

ORATION,

DELIVERED ON THURSDAY FEBRUARY 9, 1826,

BEFORE THE

Hunterian Society:

WITH

SUPPLEMENTARY OBSERVATIONS;

AND

ENGRAVINGS.

BY

SIR WILLIAM BLIZARD, KNT.

F. R. S.; F. A. S.; F. R. S. ED.; SOC. R. GOTTING. CORRESP.; HON. PROF. OF THE ROYAL COLLEGE OF SURGEONS IN LONDON.; SURGEON TO HIS ROYAL HIGHNESS THE DUKE OF GLOUCESTER, AND TO THE LONDON HOSPITAL.

PRINTED FOR THOMAS AND GEORGE UNDERWOOD,

No. 32, FLEET STREET.

Carpenter & Son, Printers, Aldgate High-Street.

TO

WILLIAM BABINGTON, M. D.; F. R. S.,

PRESIDENT:

TO

THE VICE-PRESIDENTS:

TO

THE MEMBERS OF THE COUNCIL:

AND TO THE OTHER VALUABLE MEMBERS

OF THE

Hunterian Society;

THIS ORATION

IS RESPECTFULLY INSCRIBED,

BY THE AUTHOR.

AN

ORATION.

OPINION, be it founded in truth or error, governs thought, and action; and is indefinite in extent of influence.

Although it may be formed from a passing and trivial incident; and its impression, on promulgation, be limited to a few minds, yet, at some period, by successive communication, the whole intelligent race of mankind may bear a stamp of its original character.

Such reflections naturally pressed on the mind of your first Orator. For, however light his admitted authority, he presumed that it would be sufficient

to give some direction and force to the observations which he might offer; and paused, in apprehension, that, from defect of knowledge, or judgment, he should fail in his endeavour to impress correct opinion.

His fears have been increased by the recollection of circumstances, unfavourable to his undertaking.

Had he duly considered, that, in his preparative labour on the occasion, the most formidable interruptions, from imperative calls of public duty, would happen, he must have declined the assigned task: but his obligation to the performance of it appeared irrevocable.

Moved by such sentiments and feelings, he resolved on submitting to this learned assembly certain facts; not only as appearing to be generally interesting; but also specially proper on the occasion.

The controlling circumstances of his situation required, that he should proceed in a desultory manner, as more likely to promote the final intention

of his discourse, than by any arrangement of ideas, the attempted order of which would be frequently broken.

What is the object of an Oration in this place?—The Honour of the HUNTERIAN SOCIETY; by the impression of Truths, upon minds ever prompt to receive them for the advancement of the healing art.

Societies of every description have the power of counteracting, in various ways, the prevalence of evils existing within their distinct spheres of cognizance.

An observer, through a long period, of the tenour of conduct of professional men, now invokes the energies of this Society against reigning practices; adverse to the cultivation of sound knowledge, and of pure principles; disgraceful to individuals; and deeply affecting the happiness of the community.

Alas! the prospect of mingled characters in the Metropolis is appalling.—Are we not daily called upon to recognize as Surgeons, Men, ignorant of the

structure of organs, whose functions determine the condition of every fibre of the body, professing extraordinary faculty in treating diseases of distinct parts, whose affections are produced by remote morbid actions?—Have we not daily pressed into our hands artful appeals, to excite the movements of humanity, and munificence, for the purposes of individual interest, by the establishment and support of institutions, of various descriptions, injurious to that system of cultivation and communication of professional knowledge which has the approving seal of experience? Publications, for vile and sordid purposes, shocking to decency, and degrading to the human character? Pamphlets, and journals, vehicles of calumny and falsehood, intended to excite and gratify the most debasing passions latent in the heart of Man.—Do we not daily witness charlatanical conduct, under all the modifications of art, and the mask of sincerity, in men, whose endowments, directed by correct sentiment and feeling, might have sustained them in the even track to eminence and fortune?

High and permanent professional character can be the consequence only of the exercise of sound know-

ledge, upon principles of truth, and simplicity, such as moved the excellent Dr. Baillie.

He who assumes the professional character on a weak foundation of knowledge, impelled, principally, by the desire of riches, and presumptuous in the pursuit of fame; may flourish awhile in the splendour of lucre: but, be his days prolonged, and he will descend from his height of vanity, into the low condition of insignificance and contempt.

Whereas the man who bends all his faculties to the attainment and improvement of that knowledge which he would gladly exercise in the service of humanity, for the sole gratification of his own feelings; will, in time, unconsciously, acquire that high, and unfading lustre of character, which is the reward of undeviating exemplary conduct.

The uniform example of the learned President, and the well-directed steps of the members of this Society, in the different walks of medical science, illustrate the influence of the principles to which the Speaker has offered his homage: and, tacitly,

express abhorrence of those practices which it is his duty to expose.

The order of general society depends, greatly, upon the harmonious movements of its various corporate establishments.

The public benefits of the legally constituted medical authorities in the metropolis, are results, principally, of their concurrent determinations.

The spirited exertions of these bodies, in correction of the deplored evils, would be the performance of a sacred duty, to themselves, and to the general community.

The Speaker will stay this cheerless theme, in rational expectation, that such duty will be fulfilled.

The HUNTERIAN SOCIETY sprang from the purest motives of honourable men: it was formed, not in the spirit of illiberal opposition; not for the proud display of knowledge; not for the acquisition of prevailing eloquence, by the suppression of modest feeling; not for the cultivation of the

sophistical art of veiling error in the garb of truth; not for any purpose, but the promotion of medical and chirurgical science; by oral communication of recently ascertained facts, ingenuously and simply stated; and by perspicuous written comments on truths which have not been duly cultivated.

The designs of institutions of a similar character have been so frequently expressed, on various occasions, that any remark on their utility, by the promotion of liberal sentiments and conduct, in addition to scientific information, would be unnecessary.

The mind of HUNTER was ever bent on inquiry relating to animal fabric, and function; and on the application of his knowledge in promotion of the healing art.

Such a disposition moved the highly endowed commentator of MORGAGNI,* when, with firm intention, he proposed the establishment of this Society; and while, with unremitting zeal, he has

* On the Seats and Causes of Diseases, investigated by Anatomy abridged, and elucidated with copious Notes, by WILLIAM COOKE.

pursued the object to its present advanced prosperity May the honoured name of HUNTER ever have a magic influence on the minds of its members!

Impelled by such influence, the speaker will endeavour to engage the further attention of his indulgent auditors.

The isolated character of his facts cannot lessen any intrinsic value which they may possess; in minds prepared to receive, and to employ, every observation to its utmost extent of utility.

The erudite and ingenious SIR THOMAS BROWN, KNT. corrected many errors which had been handed down by philosophical authority; and which the lively author termed "*Vulgar Errors.*"

The genius of HUNTER would have been well directed in the correction of many errors, generally admitted, and reasoned upon, as truths, relating to animal structure, and function.

But all his moments were employed in produciug from hidden recesses of nature, truths, to which

as tests, assumed facts, and fallacy, might ever, with corrective certainty, be referred.

Allow a brief indulgence in this strain.

How vaguely is the word cavity used! What is strictly understood by it?

How wary should men be in the use of the high faculty of speech; lest unmeditated association of ideas should follow the utterance of a single word!

What consequences, in physiological reasoning, and pathological conclusion, follow the correct admission, of an elastic halitus in all the spaces designated cavities: and in the cellular fabric of all the organs of the body!

What reflecting inquirer into facts relating to the medium preventive of cohesion of surfaces would not hesitate to adopt the generally received opinion, that it is a palpable serous fluid, definite in quantity when produced by the healthy action of vessels?

Let reflection extend to the ventricles of the brain, and to the parts surrounding those central caverns; to hydrocephalus; to edema, and every hydropic affection; and what different conceptions would be formed, of diagnoses, and remedial processes, from those which would necessarily follow the erroneous notion of a medium, which did not regularly distend, sustain, and give the tension of life to every part.

What error in judgment must have followed the supposition of a void, at any time, in dilatable organs, having muscular investment, as stomach, intestine, and bladder; or of an inherent power of dilatation in those organs! How often, upon anatomical examination, or chirurgical inquiry, is rugose stomach, rugose bladder, considered as the effect of morbid action; although only of the regular expulsive function of surrounding muscular fibres!

Physiological errors lead to dangerous consequences.

Crimson lines, in absorbent vessels leading to lymphatic glands, are commonly supposed to

indicate absorbed virulent matter: whereas, the speaker, from long and steady observation, can aver, that the contrary is the general truth.

If there be, in any mind, doubt on this point, how important that it should be removed; and, that opinion in the particular case should rest on universal admission of fact!

How often have the lives of men, beloved and revered for their virtues, and scientific endowment, fallen sacrifices to different, yet equally erroneous, hypotheses, relating to expressions of actual, or apprehended, virulence by absorption!

Let not the speaker be supposed to deny, that expression of inflammation of an absorbent vessel may co-exist with the current of a poison in it: rarely, however, does such an expression occur, from the certain absorption of variolous matter, of syphilitic virus, or of the vaccine lymph; but frequently is the sign expressed from a wound by a clean metallic instrument, or from a fragment of undiseased bone.

What notions are generally entertained of organic alteration of the prostate gland: how frequent the declaration of its schirrous condition!

Not any part of the human body may have absolute exemption, by organization and implanted disposition, from such a distinctive disease.

But a long period of anatomical research affords to the recollection of the speaker, only one instance of morbid affection of the prostate, which he could properly designate schirrus.

The morbid character of schirrus doth not admit of favourable alteration; but only to the carcinomatous condition.

Other distinctions of induration, and enlargement, of the prostate gland, are within the sphere of curative consideration.

How encouraging are such reflections to the persevering exercise of judgment, and skill! How consolatory to sufferers, otherwise unsustained by the hope of relief!

That revered promoter of anatomical and chirur-

gical knowledge, CHESELDEN, has somewhere recorded, that the divided portions of a fractured patella would not become united by an osseous medium: and this opinion was maintained, at no great distance of time, by the excellent Mr. WARNER.

But a fractured patella will become united by a firm bony production; under the laws of ossification, which direct the process of union of every other divided bone. In every case of fractured bone, union will necessarily have relation; to the sphere of ossifying disposition of the preparative vessels, which, in the patella, appears to be very limited; to the proximity of the divided portions; and to various other relative circumstances; not to mention chirurgical treatment, as conformably, or not, to correct notions of muscular action.

The physiological error, thus gravely sanctioned, would not be important as to the event of union of a fractured patella, whether by a bony or a ligamentous medium, as either would be efficient: but arguments might be maintained, and erroneous conclusions drawn, relating to the general ossifying

power of the vessels of the divided parts of bone, from the admission of the error.*

The illustrious Pott has observed, that ligatures on the omentum proved fatal.

If, in consequence of the excision of omentum, in the operation for hernia, a considerable portion of omentum be included in a ligature; the effect upon the colon, stomach, and diaphragm, would be such as fatally to maintain, or to renew, the hernial symptoms.

Whereas, should ligatures be made on single, or detached vessels; the cords be loosely brought out; and the omentum returned, in such a manner as freely to expand and float in the abdomen; no evil, from the ligatures, would ensue.†

Thus far, encouraged by your attention, Your orator has ranged within the views of the society.

Admit now a few excursive ideas, the influence

* Appendix.

† Appendix.

of which may promote the principal objects of this society.

Men entitled to philosophical consideration, will hold in due respect natural truths, although, at the time of their discovery, or promulgation, not any consequential benefit be foreseen: such unquestionably are the impelling reflections of the arctic exploratorS.

The single facts, from the mind, and by the hand, of HUNTER, contemplated with reference to their original isolated character; and to the important illustrations of healthy and morbid actions which they have since afforded; will powerfully encourage every attempt to enlarge the catalogue of simple physiological, and pathological, truths; and to extend the beneficial application of the elementary ideas of HUNTER.

Have the elucidations of his interesting doctrine of sympathy corresponded with the advances of neurology?*

* The successful labours of PROFESSOR BELL will aid and animate expositors of HUNTER.

Has the knowledge of the universal inosculation of arteries, and of their dilatation in the ratio of their diameters, under certain impressions of necessity, been extended far beyond aneurismal subjects?

Has such knowledge been applied to the correction of morbid disposition; and to the removal of its consequences, as expressed by tumours of various descriptions?

The power vested in animal life, of accommodation to the variable influence of atmospheric heat, requires further illustration; and application to beneficial purposes.

Have the observations, relating to inflammation of trunks of veins, and of absorbents, been pursued by remarks on the inflammatory action of myriads of capillary veins, of absorbents; and its consequences on the heart, on the arterial system, and on the blood?

Have the decisive experiments, and observations, on the menstrual power of the gastric liquor, been followed by investigations, with the direct view of

ascertaining the influence of agents in regulating the secreting function of the stomach?

Have the progressive differences of diameter in the intestinal tube been duly considered, by reasoners on its regular functions; its irregularities of action; and on its diseases? *

The deadly effect on the brain, from the inspiration of highly carbonated air; or, of the retention of the carbonic principle, by impeded respiration; is well known.

Has the knowledge of such power been applied, by observations on the effects of air, deeply laden with the deleterious gas, but not in an immediately fatal degree; on particular nerves; blood vessels. and absorbents; by topical, or by circuitous impression; on inflammation, from light causes; on characters of inflammatory action; on paralytic expressions?

Science binds, in interesting union, good men of all countries; whence the harmony of nations: it is a

* Measurements, by inches, in circumference, of the small, and the large, intestines, inflated: from the same subject.——Duodenum, at its commencement, $5\frac{1}{2}$—Ilium, at its termination, $3\frac{1}{4}$—Cæcum $11\frac{1}{2}$—Colon, at its commencement, $10\frac{1}{4}$; at its termination, near the sigmoid flexure, 5.

charm against envy, and jealousy; and renders gentle the human heart, while it expands the faculties of the mind!

Hail, then, with grateful feeling, as a blessing to the world, the communication, from France, of the extraction, by sulphuric acid, of a principle from peruvian bark, possessing, with highly concentrated power, the medicinal virtue of the aggregate.

Has the knowledge of this fact been extended to inquiry, whether there existed in other cortical substances, in roots, and ligneous parts, a similar principle; having in it the known specific property of the body in which it is a constituent?

This discovery enlivens in the mind, the chemical development, by Sir Humphrey Davy, of metallic bases in certain salts.—Has this curious subject been cultivated subserviently to objects of medicine?

The mineral kingdom has long been the busy seat of research; and thence, by chemical agency, have been produced most efficient remedies.

The vegetable creation presents an inexhaustible source of objects of unknown virtues.

The extraordinary properties of some productions stimulate to inquiry. Who can contemplate the effect of belladonna upon the iris, without the most lively feelings?

The Hon. Robert Boyle laudably endeavoured to excite attention to the subject of specific remedies.

Ideas of corrective influence on distinct parts, morbidly affected, are certainly consistent with physiological opinions, relating to the original frame, and implanted disposition, of organs.

Natives of American regions, boast of eminent virtues in some of their indigenous plants. Have such countries been visited by medical travellers, for the purposes of scientific investigation?*

Missionaries to foreign parts, in their well-founded zeal for the good of mankind, might properly incline their minds to this subject.

* Inhabitants of North America inform us, that the handsome perennial, *Phytolacca, Solanum americanum*, vulgarly *Pock Weed*, possesses medicinal

These glances over the wide expanse of cultivation in view, naturally produce a sentiment of congratulation :—that, at this time, in the COLLEGE OF SURGEONS; such a spirit of research as animates CUVIER; such an energetic disposition as actuated BICHAT; are in powerful manifestation, by faithful pupils of HUNTER.

What complacent feelings accompany the contemplation of characters, who were eminent for their virtues, and endowments!—The tribute of respect, from this society, is due to the memory of the late honourable member, JOHN MEYER, M. D.; in whom were united, profound learning; inflexible integrity; exemplary professional conduct; discerning charity; and distinguished urbanity.

Here your speaker would close his address; but humanity impels him a step further.

A morbid action occurs in the human frame; direful in its progress to a fatal issue; causing general commiseration, and dismay; and claiming the ex-

quality: the Woodpigeons are said to feed on its berries, the juice of which is of a beautiful purple colour. Do the bones of such Pigeons acquire a similar tint?

ertion of all the faculties of man, for prevention of the evil, or the relief of sufferers under its awful visitation: such is Hydrophobia; a disease too clearly defined to have its existence denied, except by ignorant, or artful and designing, persons.

The speaker, having had many lamentable opportunities of observation on Hydrophobia, will attempt to cast a ray of elucidation on the subject.

The first of the instances of Hydrophobia which happened under his notice, long ago, was in a child, who had been bitten in the lip by a rabid dog. The wound healed kindly, in a few days, by simple applications; and musk and cinnabar were internally administered, by the attendant practitioner.

The child was too young to have any consciousness of danger; nor had the parents apprehension of any, subsequently to the healing of the wound; until about the 21st day, when, the child having past two or three restless nights, the disease became decidedly formed, and soon terminated fatally.

Assurances have been received of several occurrences of Hydrophobia, from bites of rabid animals;

in children too young to have been seriously impressed by the influence of the mind, and only sensible of painful feeling in the part affected.

Such histories are against the admission; that Hydrophobia is the consequence of workings of imagination.

A young woman, servant to a clergyman, at Hoxton, a patient of the late laborious cultivator of natural knowledge, Mr. Parkinson, had been in the practice of feeding and caressing a favourite dog.

The animal became, and died, rabid; without her apprehension of its condition.

The season was winter, and her hands were much chapped from cold. She had suffered the dog freely to lick her hands; but the creature had not bitten, nor had ever attempted to bite her.

Nothing extraordinary occurred in her hands: but, after about three weeks, she was seized with unequivocal symptoms of Hydrophobia; and thereupon sent to the London Hospital; where, after in-

effectual endeavours for her relief, she died, a victim to her undistinguishing kindness.

This case surely expresses disease by absorption.

There was no painful infliction of wound to justify a supposition, that the disease was the consequence of the local impression of a stimulus, sui generis, operating upon the nervous system; on the encephalon; and, ultimately, with fatal influence, on various organs of the body.

Writers of unquestionable veracity have asserted, that, about the period of the accession of Hydrophobia, the wounded part, which had been some time healed and easy, became painful, and manifested signs of irritation.

The admission of the fact, of a local morbid action, preceding, or accompanying, the symptoms of general influence upon the system, must necessarily incline the mind to a most important conclusion; strengthened by considerations of the analogies of events in the experiments of HUNTER, relating to effects

on the insertion of variolous matter; and, since, by remarks in the practice of vaccination.

On reasoning a priori, without practical evidence, excision of the part bitten by a rabid animal, would naturally be considered as the process which should be adopted, in prevention of the dreaded evil: and which, at any time before the morbid action has begun in the wounded part, would be performed with probability of success. Positive evidence can be only on the side of inefficacy: but the mass of presumptive evidence of success, by the practice of excision, is so considerable, as nearly to approach positive weight of argument.

Towards confirmation of a process thus founded, the speaker can assert, that, in the numerous instances of his performance of it, at the London Hospital, and on private calls, at various periods from the time of the bite, not a single consequence of Hydrophobia has occurred.

Some Surgeons have doubted the efficacy of excision, from their knowledge of its failure. But no person would pronounce this practice as invariably

preventive of disease, who has well considered the different circumstances under which excision may be performed; the divers susceptibilities of the human frame; the possible varieties in the depth, and extent of the wound by the bite; the not improbable diffusion, far beyond the wounded part, of influence from the saliva of the rabid animal; and the chance of inattention, or unskilfulness, in the performance of the operation, as often is illustrated in vaccination.

Another fact, without comment, and your speaker will no longer detain his patient auditors.

A few months ago he saw a young man at Poplar, who, some time before, had been bitten by his own dog; which had become, unquestionably, rabid.

This person was in the deepest condition of Hydrophobia.

An injection of Tobacco was recommended, and immediately administered; which, so far relieved him of all convulsive agonies on the presentation of any liquid, that he calmly took in his hand, and

drank, such a fluid as before had occasioned most revolting distress.

Mr. STARKEY, Surgeon, at Limehouse, was called to this person, upon the accession of Hydrophobia; not before.

The detail of this case, which terminated fatally, will, more properly than on the present occasion, be doubtless, the subject of a paper to this Society.*

* The history of this interesting case has since been transmitted, by Mr. STARKEY, to Mr. COOKE, of Trinity-square, Honorary Secretary to the Hunterian Society.

The following brief narrative may not be considered foreign to the above remarks on the subject of Hydrophobia. A man, admitted into the London Hospital, on occasion of an accident, was seized with trismus, and other signs of approaching general tetanus. A tobacco injection removed all the symptoms. The ordinary effects of the clyster were so powerfully felt by him, and thence his dread of a repetition of them such, that, on another injection being proposed, with the view of confirming the benefits obtained, he left the Hospital; and went to Mr. RUTHERFOORD, of Ratcliff-Highway, Surgeon: whose report of this man is, that he has not experienced any degree of return of spasmodic complaint. Thus the one clyster appears to have effected his cure: a second, unless of much reduced strength, would, probably, have been fatal.

RESPECTED AUDITORS:

Accept the cordial acknowledgments of your Orator, for your attention to the observations, on various topics, which age, experience, and sincerity, have emboldened him to offer.

May the liberal confidence of the world in the professional character, be ever maintained; by a faithful devotion of time, and talent, in the service of suffering humanity; and by uniform respect for the peaceful order, and happiness, of the community!

And, may that POWER, which, by mysterious influence, regulates the works of creation, and governs the designs of men, perpetuate the HUNTERIAN SOCIETY, in the exercise of the good principles on which it is founded!

APPENDIX.

OBSERVATIONS

ON A STRETCHING FORCE APPLIED TO MUSCLE;
AND ON THE TREATMENT OF A TRANVERSE FRACTURE OF
THE PATELLA;

read on the 10th of JANUARY, 1821, before the

Hunterian Society;

BY

SIR WILLIAM BLIZARD, KNT.
THE FIRST PRESIDENT OF THAT INSTITUTION

RATIONAL Surgery is founded on anatomical, and physiological knowledge.

Practitioners often imitate their predecessors, without inquiry into the rationality of their imitative practice.

The consideration of a law of the animal economy will justify this assertion.

The quiescent state of a muscle is affected by any preternatural stretching force; and various, and often most important, are the consequences of such an occurring extension.

The least degree of such force on the diaphragm occasions singultus, and all the distressing irregular actions of that muscle.

If a pulling effect be produced on the stomach, vomiting ensues: and thus, from similar excitement, effects will occur, according to structure, connection, and office, in every part of the intestinal canal.

Ligatures on a mass of the omentum, necessarily brings into inordinate, and fatal action, the intestines, stomach, and diaphragm: whence the various symptoms of hernia.

But illustrations might be drawn from the consideration of the effects of a stretching force, according to the structure and function of every organ of the body.

In every case of such force, the natural endeavour is, to free and save the part from its effects: thus, as upon many other occasions, the endeavour is beneficent, although the consequences may prove fatal.

If a muscular part, stretched by some force, and suffering from it, be divided, ease immediately succeeds.

Convulsive actions, extending fatally through the muscular system, have followed the violence of a single ligature on a muscle.

Further general remarks would be unnecessary. The design of this paper is, the application of a physiological principle to a case of chirurgical treatment.

The general procedure in the occurrence of a tranverse fracture of the patella, appears to be, to make a circular bandage above, and,

another below, the knee; and, by connecting them, to approximate the divided portions of the bone.

This practice, the author has long considered, and, in his judgment, demonstrated, to be erroneous.

So long as the upper circular ligature be continued, the extensor muscles will act, to extricate themselves from the resisting force; and thus will, generally, in a considerable degree, frustrate the intention of the bandages.

Without dwelling on this part of the subject, the following has been the author's simple, and successful, practice, at the London Hospital.

In one brief sentence: the practice is merely negative.

Not any bandage whatever is applied; even little regard is had to position: in most cases, however, the patient is kept lying, with the leg extended.

Some time since, mention was made to several members of this society, that there were then two cases in the Hospital, under the explained treatment. One case terminated in a firm bony union of the divided parts: the other by a short ligamentous medium. Both patients left the Hospital with perfect freedom of motion of the knee joint.

Circular bandage, especially if applied during any degree of inflammatory action, is not unfrequently the cause of adhesion and rigidity of the tendinous and surrounding cellular parts, very unfavourable to the motions of the limb.

A lady received a fracture of the patella, which was treated by bandages; and, after a ligamentous union, adhesions were found to have been formed, and to prevent the motions of the joint. Many months after, she had an accident which separated the united parts of the patella, and loosened the adhesions: she was now treated without any bandage; the parts united, and her Surgeon informed the author, a few days ago, that the functions of the joint were restored.

The violent effort of the extensor muscles to save the body from falling, often occasions a separation of the broken portion of bone to a considerable distance up the thigh; where it would remain, unless removed by external means. But such removal is not in the least degree difficult, after the flurry of the muscular fibres has ceased. Gentle applications of the hand will effectuate the purpose, to the ordinary extent of elongation of the muscles.

The author's treatment of rupture of the tendon of the extensor muscles of the leg; of the tendo-achilles; and of fracture of the olecranon of the ulna; has long been according to the expressed principle of conduct.

The learned and highly respected rector of a neighbouring parish, had, lately, the tendon of the extensor muscles of the leg completely lacerated; in the like manner in which a transverse fracture of the patella happens. Not any bandage was employed: the divided parts became perfectly united, and the use of the limb restored.

A few months ago, a man was admitted into the Hospital, on account of the division of the tendo-achilles, by a cutting instrument. The author directed all the bandages which he found applied to be re-

moved ; the wound to be dressed superficially ; and the patient to be kept at rest in bed. The wound readily healed ; and the patient left the Hospital with the perfect use of the foot.

One observation will decisively express the propriety of every rational endeavour to avoid circular bandage in a fracture of the patella.

Such description of bandage is known to have impeded union in fractures of the bones of the upper, and lower extremities ; and must, therefore, be of injurious tendency, at least, in fractures of the patella.

THE

ENGRAVINGS.

THE Engravings were, long since, executed by the eminent JOHN HALL, Esq. R. A., from drawings by the excellent Draftsman EDWARD EDWARDS, Esq. Prof. of perspect. to the R. A.; and which Engravings may, probably, be considered as fine specimens of graphical art in anatomical representation.

The preparations of united patellæ were from the same subject (Oration, p. 17.)

A curious anecdote rests upon these preparations.—The late Mr. SHELDON applied to be permitted the examination of them, as he was preparing to publish on fractures of the patella: the preparations, in spirit, were immediately sent to him; with the request, that he would not have drawings from them, as engravings of them were made, and intended for publication. His work came out, with Engravings of these patellæ; which Engravings, he said, " were not copied *from the preparations; but were executed from memory.*"!

The original Drawing, from which the second Engraving was taken, is in the possession of the author's esteemed friend, Prof. MONRO, of Edinburgh.

A brief history of the case which gave occasion to the Drawing, will be the best explanation of the Engraving.

A man, in the London Hospital, was operated upon for inguinal hernia. The sae contained intestine, and omentum; the latter compacted into a firm rounded body, having a narrow neck, constricted at the ring. The intestine was returned. The condensed body of the omentum was cut off, at the contracted part of it: not any hemorrhage ensued; and the remainder of the contracted portion of the omentum, on the outside of the ring, was readily passed into the abdomen. All the hernial symptoms soon ceased; and he proceeded favourably, until the third or fourth day, when they were renewed with violence, and continued to his death.

The dissection, on this occasin, affords a striking proof, of the importance of anatomical inquiries into the seats and causes of diseases; and of the facilities which ought to be provided in hospitals for the performance of such duties.

The fatal cause of the renewal of the symptoms was immediately evident Adhesion to the peritoneam, of the incised extremity of the narrow part of the omentum, had been formed about an inch above the ring. The folds of the omentum from the transverse flexure of the colon, converging to the point of adhesion, finely illustrate Mr. Pott's observation of the fatal consequence of ligatures on the omentum (Oration, p. 18.) In this case, the colon, and all the parts connected with the omentum, were brought into a state of irritation, by the action of the abdominal muscles in respiration, and by various other causes.

From this dissection two practical rules are deducible.

1. Not to excise omentum at a narrow and contracted part; but beyond it, so that the remaining omentum may freely expand in the abdomen.

2, When arteries of the omentum require ligature, carefully to detach them by the elastic forceps, and to tie them most distinctly.

An opportunity soon occurred of proving the correctness of these deductions.

A servant, in the works of Mr. Minish, then a manufacturer of muriate of ammonia, at Mile-End, was brought to the Hospital, in an urgent con-

dition of strangulated hernia. The author operated. The omentum was in the state described in the other case: the intestine was not sphacelated; it was returned: the ball of omentum was removed, by excision above the contracted and indurated part: several vessels required to be tied; which was done with distinctness: the remaining omentum, external of the ring, and the long and loose ligatures, were passed into the abdomen. The ligatures were never pulled; but left to spontaneous detachment. Not any adverse symptom arose; and the patient returned, well, to his laborious employment.

Since the period of this case, many confirmatory illustrations of its truths have been presented at the hospital.

The author is induced to present a third Engraving, for the purpose of introducing some additional observations, in illustration of the design of the Oration.

A man was admitted into the London Hospital, with a dislocated arm; which was presently reduced: he had also received great injury in the body; of which, principally, in a few days, he died.

The Engraving will produce a general idea of the laceration of parts surrounding the articulation: and will, moreover, afford an expression of the force of opinion, without inquiry whether it be founded in truth or error.

In the days of some anatomists, and surgeons, yet living, the difficulty often experienced in efforts to reduce a dislocated arm, was ascribed to a slit, produced, by the head of the bone, in the ligamentous parts; the edges of which slit tightly grasped the neck of the bone.

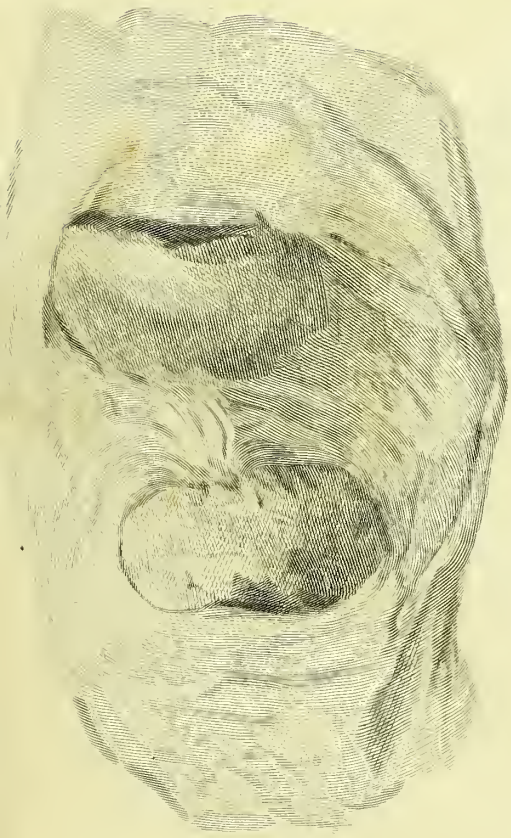
This "*vulgar error*" was demonstratively corrected by the illustrious Dr. William Hunter; and by the distinguished Henry Thomson, Esq., Surgeon to the London Hospital.

The Drawing, from which the Engraving was taken, was shewn to the universally recognised patron of anatomical and chirurgical science,

JOHN HUNTER; who examined it, with his accustomed attention to every endeavour for the improvement of chirurgical knowledge,

Even at this time, some surgeons appear to have only a confused notion of the structure, and connection, of synovial membrane: which is a perfect sac, reflected over the cartilages of every moveable articulation; as may be demonstrated, particularly when the articular surfaces of the cartilages have been frozen, after a little maceration in water.

CARPENTER & SON, Printers, Aldgate High-street.



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