

The Hunterian Oration : delivered in the theatre of the Royal College of Surgeons, on the 14th day of February, 1815 / [Sir William Blizard].

Contributors

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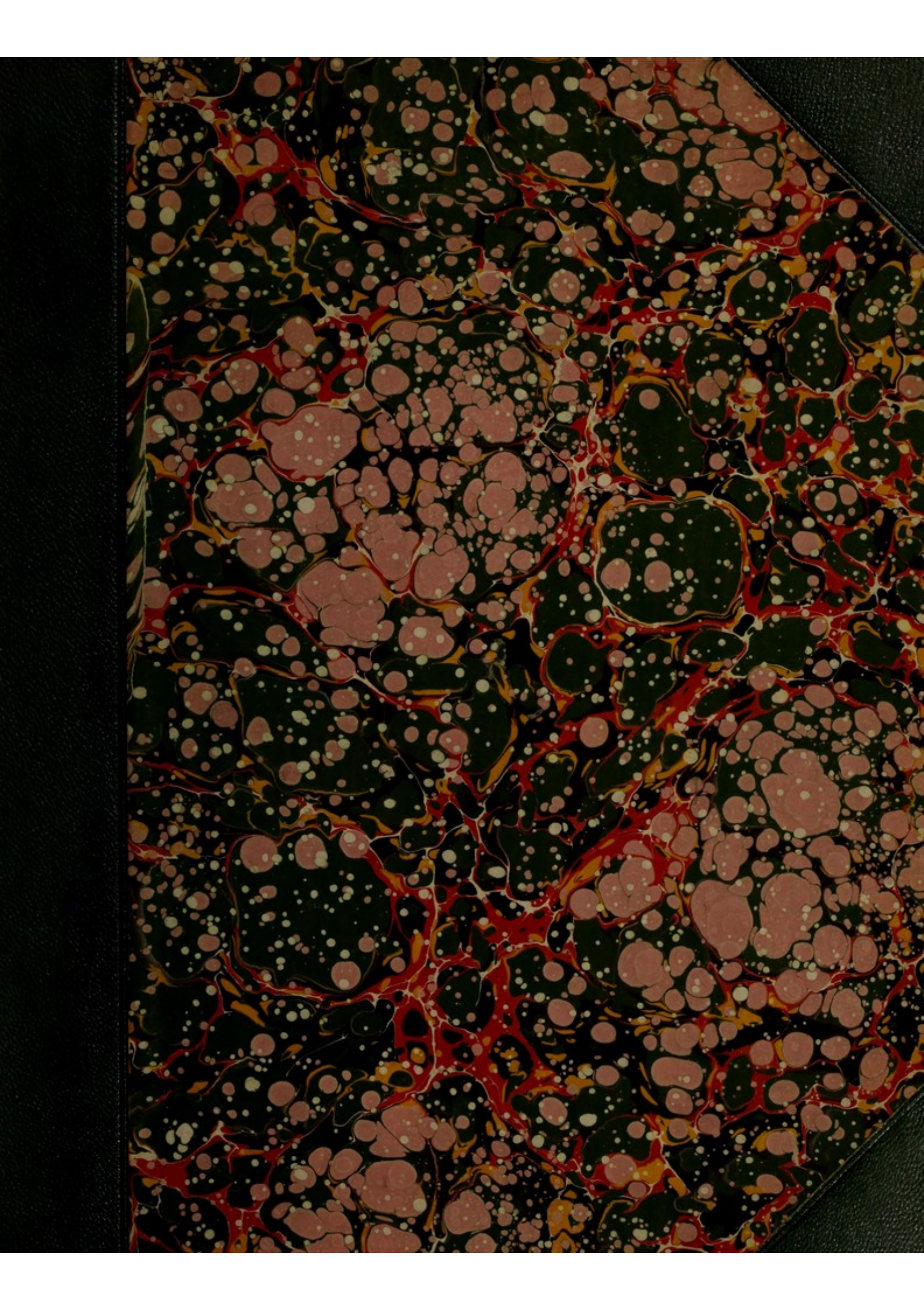
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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 551

LECTURE NOTES

BY WILLIAM A. BRYAN

1951-1952

CHICAGO, ILLINOIS

UNIVERSITY OF CHICAGO PRESS

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*The Right Hon.^{ble} Charles Abbot,
Speaker of the House of Commons,
most respectfully
from the Author.*

THE
HUNTERIAN ORATION:

6½

Delivered in the Theatre

OF THE

ROYAL COLLEGE OF SURGEONS,

On the 14th Day of FEBRUARY, 1815:

BY

SIR WILLIAM BLIZARD, KNT.

F. R. S.; F. A. S.; F. R. S. ED.; HON. MEMB. OF THE ROYAL
MED. SOC. ED.; SOC. R. SC. GOTTING. CORRESP.;
HON. PROF. OF ANAT. AND SURG. OF THE
ROYAL COLL. OF SURGEONS;

AND

SURGEON to HIS ROYAL HIGHNESS the DUKE of GLOUCESTER,

AND TO

THE LONDON HOSPITAL.

LONDON:

PUBLISHED BY RIVINGTONS, ST. PAUL'S CHURCH-YARD;
AND
SOLD BY HIGHLEY, FLEET-STREET; CALLOW, CROWN-COURT, SOHO;
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SOUTHWARK.

PRINTED BY T. BAYLEY, DEVONSHIRE STREET, BISHOPSGATE.

1815.

TO

MATTHEW BAILLIE, M. D.

AND TO

SIR EVERARD HOME, BART.

IN TESTIMONY OF HIGH RESPECT

FOR THEIR LIBERAL AND SCIENTIFIC CHARACTERS;

WITH GRATEFUL FEELING,

IN BEHALF OF SURGERY,

FOR THEIR COMMEMORATIVE ENDOWMENT;

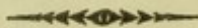
THIS ORATION IS INSCRIBED

BY

WILLIAM BLIZARD.

(COPY)

ROYAL COLLEGE OF SURGEONS.



At a Quarterly Court of Assistants, holden on the
11th Day of April, 1815.

RESOLVED:

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

PREFACE.

THE HUNTERIAN ORATION, *in honour of surgery, and in memory of men by whose labours it has been advanced*, is annually delivered to an audience of different descriptions; who, consequently, are variously impressed upon the occasion.

The man of GENERAL SCIENCE will note the events and ways by which anatomical and chirurgical knowledge has been promoted; and also the occurrences which have retarded its progress. He will distinguish how far professors of surgery have availed themselves of facts favourable to the improvement of the art and science of their special cultivation. And his conclusions may, in some degree, determine his own endeavours for the advancement of general natural knowledge.

The young PHYSICIAN will be strengthened in his sentiments of the importance of demonstrative knowledge, relating to the structure and economy of animals. He will deduce, from the histories of discoveries, and their influence upon opinions, that doctrines, unfounded in anatomical, phy-

siological, and pathological truths, are generally vain and delusive.

The SURGEON, who has undertaken to judge of the seats and nature of injuries and diseases, to regulate the actions of the muscular system, and to perform necessary operations, will learn, that, in this day of active inquiry, excited and maintained by presented examples of the illustrious dead, except his attention be constantly awake to discovery and improvement, he will soon cease to be fit and capable conscientiously to exercise the art and science of surgery.

But most of all, STUDENTS in the healing art, the numerous pupils of the hospitals in London, the future hope of surgery, will receive information conducive to the success of their studies, and, consequently, to the interest of mankind.

Men in general soon lose their energy, and view, with tame indifference, the best designs for the advancement of knowledge.

Whether religion, or morality, or literature, or science, be the object of cultivation, its principles should be planted in the season of youth, for the prospect of valuable fruit.

The consideration is encouraging to men who contemplate human nature with ideas of improvement of the mind and heart, and of increase of happiness in the world, that, by due regard to education in the rising generation, the members

of a national community may, in the compass of only a few years, be, in a great degree, changed in intellectual and corporeal habit and character.

Such were governing sentiments in the construction of this Oration.

The Author thought, that, in final effect, he should best support the design of the Founders of the Oration, by endeavours—to produce just conceptions of surgery; of establishments which contribute to its cultivation and improvement; of the spirit which has actuated its distinguished promoters; and of the disposition favourable to research for natural knowledge: and to indicate the paths necessary to be pursued, and the examples proper to be followed, by students in the pursuit of chirurgical attainments.

Some paragraphs, which, from the length of the composition, were omitted in the delivery, are restored: and the Oration is printed according to the form adopted by Sir EVERARD HOME; in order that, if the examples in this respect should be followed, the Orations of several years may be bound together.

DEVONSHIRE SQUARE,

April 12, 1815.

THE
HUNTERIAN ORATION

AMIABLE, and illustrious, are the acts of public benefit which spring from private virtues.

From feelings, honourable to human nature: from the desire of perpetuating a testimonial of respect for the memory of **JOHN HUNTER**: from disposition, congenial with the qualities of his nature: from a lively sense of spontaneous exertions, for the preservation of the works of his hands; and

for the cultivation of the fruits of his genius: and, from the conviction, that excitement of the energies of this College tended to improvement in the healing art: sprang the HUNTERIAN ORATION.

And ever, upon this returning, this interesting day, will the assemblage here, of men distinguished for their virtue, their erudition, their patronage of science; of students grateful for scientific benefits; applaud the wisdom, the generosity of the design.

Example is the most powerful incentive to great actions. It prepares, and elevates the tone of the mind, and even augments the physical powers, to the standard of effectual exertion.

The labours, and scientific characters of celebrated anatomists, surgeons, and natural philosophers, will denote the progress of improvement in the art and science of surgery: and will, also, illustrate the effects of example; their relation to its nature, and force of expression.

But the lustre of example will not be sufficient to direct the young inquirer, into the ways which lead to that knowledge which is the object of his pursuit.

Students, in the career of research, require, and will, every year, in this place, receive, from age and experience, in addition to the daily precepts of their able masters, information, of the nature of the various constituents

of that knowledge which they seek: of the paths which lead to their sources: of the degrees of the possession of them, by patterns of excellence: and, of their beauty, and intrinsic value, when combined in the art and science of surgery.

That division of practical knowledge, which is understood by **SURGERY**, constituted the principal part of the character of the primitive professor of the healing art; the extractor of darts, the healer of wounds, the administrator of herbs for the cure of maladies.

When learning became regularly cultivated, and academical honours were conferred upon men, according

to their demonstrated or admitted progress in knowledge; the erudite surgeon received the title of **Doctor of Medicine**.

Whence arose the distinctions in the healing art; which have continued to the present day, with varying effects to science, and to the interests of mankind.

For a long period, the surgeon, in this country, struggled for the attainment of knowledge, and for independence of mind, against the baneful influence of monkish art, of scholastic pride, of deceptive sophistry and mystery.

Thus have the faculties of man been restrained from useful exertion; thus

has mental darkness been maintained, by men who should have elicited light, and have poured it into every inclining mind.

The general diffusion of unsophisticated knowledge has, at length, brought into action the powers, and corrected the judgment, of mankind.

Strength of genius for anatomical and chirurgical research, is not, probably, of frequent occurrence: else a greater number would appear in the catalogue of men eminent for their anatomical and chirurgical attainments; for genius is impatient of control, like a swelling torrent it bears down opposition.

Anatomical facts may be heard ex-

plained, and seen demonstrated, in a theatre; but only by practical investigation can an impression of them be obtained, correct, deep, and efficient.

Anatomical facts are to surgery, as mathematical axioms are to the sciences which they uphold.

The truths of physiology are derived from the knowledge of the structure of sound, and of diseased organs; and are deduced from direct, and from comparative observations, upon the phænomena of living animal creation. They are transmitted by writings; are orally communicated in theatres; and are demonstrated, illustrated, and enlivened in the mind, by contemplation upon the fabric of parts, recently

displayed, or artfully preserved in a museum.

Chirurgical pathology is founded in anatomy, and physiology; and is, principally, demonstrative. Its histories, and precepts, are conveyed in writings, and communicated in prelections: but observations in the wards of an hospital, and upon every occasion of anatomical inquiry, are indispensably requisite for obtaining clear and strong ideas of the seat, and nature of injury, or disease.

The original allotment of the operative part of the healing art, to surgery, has proved important to its utility, and consequent estimation. For the accuracy of that knowledge of the

structure of organs, which is necessary in every operation, naturally led to information of their functions; of the nature of their injuries, and diseases; and to suggestions of improvement in modes of relief.

Every effort of talent which cultivates precision of thought, and arrangement of ideas, is favourable to the progress, and ends of science; consequently, nosological systems are of utility.

But they should be studied in an hospital, as guides to objects of intended meditation; and then, under government of the reflections, that, although plants, and other productions of nature, admit, by their sen-

sible qualities, of unerring classification, the graduating varieties, and the anomalies of diseases, are such, as to render definitions of them very imperfect, and of limited and uncertain practical application; and, that the judgment to be sought, consists in the knowledge of a disease in its incipient state, and lightest shade of expression.

The metropolis is an **UNIVERSITY** of **SURGERY**, where genius may have its utmost scope, and laborious research be amply supplied, and gratified.

Its many hospitals, suggested by piety and devotion, have been wisely modelled into schools of **chirurgical science**; and illustrate the excellence

of CHARITY, whose immediate benefits have always extended influence.

The metropolis must ever be the source of anatomical, and chirurgical information. Its countless inhabitants, its manufactures, and commerce, will always require extensive eleemosynary receptacles for the diseased, and hurt, indigent part of the community: and enlightened charity will direct her gifts according to the views of science.

The ardour of students is kept alive by constant presentation of objects of research.

The delivery of lectures on anatomy and physiology, and on the principles and practice of surgery,

and the formation of libraries, in the several hospitals, have completed their preceptive character.

By such means facts are continually accumulated, illustrated, and applied to the most valuable purposes of surgical education.

Students repair to libraries, in Colleges and Inns of Court, for the cultivation of their minds, in literature, in divine knowledge, and in the principles of jurisprudence.

As properly do students resort to hospitals, for anatomical, physiological, and pathological information.

The numerous provincial hospitals class among the fairest monuments of humanity in this happy country.

They conduce to the improvement of the healing art, by keeping in exercise, knowledge, talent, and skill, and by affording opportunity of interesting observation.

But let not vanity, nor indolence, nor sordid principle, lead to the supposition, that the performance of initiating duties, in any such asylum, can be allowed to supersede attendance and study, in the schools and hospitals of the metropolis; and conformity to the rules, established in this College by sage experience, for the good of the community.

In proceeding to the task of acknowledgment of individual talent, and merit, the magnificent endow-

ments in the united kingdom, for the cultivation of general learning, and of the healing art, cannot be passed without that homage which is suggested by distant contemplation of their excellence.

What man is of such unhallowed mould, as not to venerate the ancient conservatories of profound, and chaste literature, by which the best faculties of man are prepared for the extended views of science, are elevated and refined to the noblest purposes of existence.

And, who can be of so dull and insensible a frame, as not justly to estimate that knowledge which teaches the proper use of intellect, in the re-

search and demonstrative test of truth, relating to forms and distinctions of tangible objects in nature.

OXFORD and **CAMBRIDGE**, and **DUBLIN**, shall glory in their venerable turrets; in the names of **BACON**, of **BOYLE**, of **LOCKE**, and of **NEWTON**; while language and figures shall be preserved, and shall demonstrate and convey the inestimable truths of science.

To **EDINBURGH**, especially, is due the grateful tribute of men devoted to the study of the healing art. There genius, talent, and knowledge have not disdained to join the hand of labour in the wide field of medical research. The names of **BLACK**, of

CULLEN, and of MONRO, which shine in the annals of that university, present to the mind the importance of philosophical distinction in individuals, to local and national fame and estimation.

Still, with becoming ardour and conscientious feeling, the students of that celebrated medical seminary resort to the metropolis for improvement in the knowledge which distinguishes its schools and hospitals.

The ROYAL SOCIETY is a luminary, from which every plant of physical science derives light and support.

Acknowledgment is due to this illustrious body, for ample accessions

of elementary facts to the store of
chirurgical knowledge.

Its transactions are a rich fund of
truths, collected by sagacious ob-
servers of the works of nature.

They breathe throughout the true
spirit of experiment and inquiry; and
will be meditated upon by students in
anatomy and physiology, with im-
provement in knowledge, and in dis-
position for natural research.

Whence, at the present day, the
perspicuous exposition of the prin-
ciples, the simplicity of the practice
of the art and science of surgery?
Whence, in every city, town, and vil-
lage, are men who have imbibed their

knowledge from the sources of the metropolis, who are honourable members of this College? Whence, in the army, and in every line of maritime service, are surgeons worthy the confidence of the brave defenders, of the commercial supporters of their country? Whence the concourse of pupils in the schools, and hospitals of the metropolis? Whence, in this theatre, the constant scene, so promising to science, and to the interests of mankind?

From the provisions, by this College, for the learning, and knowledge, of its members: from the desire of admission into a body, which employs its energies for the public

benefit: from the improved administration of the hospitals, and of the schools of anatomy and surgery, in the metropolis: from the cultivation, and dissemination, of the principles, and doctrines, of HUNTER; and, from the just consideration of the nature, importance, and dignity, of the art and science of surgery, by the monarch, and the people.

This College, although of late date in its present constitution, is of ancient origin.

It has combated with difficulties; which have arisen from folly of various descriptions.

But its active and vigilant members, moved by pure considerations

of public duty, have, at different periods, obtained alterations in its frame and character, according to the improved state of chirurgical science : whence its several royal charters, and parliamentary authorities. (*a*)

It is the bond of union of the hospitals, connecting and harmonizing them into pillars of the useful fabric of surgery.

It will be the centre of promulgation of interesting results of study, and research, in anatomy, physiology, and pathology : and a seat of refer-

(*a*) Its charters have been granted by King Edward IV. ; Henry VIII. ; James I. ; and Charles I. : and its acts of parliament have been passed in the reigns of King Henry VIII. ; and George I.

Its charter granted by his present Majesty, bears date the 22d day of March, 1800.

ence to ancient sources of natural knowledge.

Hither will the philosopher, in doubt, repair for illustration of the structure of organs, for elucidation of laws of the economy, in animal creation.

Here, the young adventurer in science will attend, to display his investment of useful knowledge, for the seal of approbation, before he launches his bark, and spreads his sail, to supply the world with the valuable fruits of his labour.

And here munificence has prepared the prize of honour; which is yearly holden in view, to stimulate to emulative and useful exertion, genius

and talent, warm from schools of science. (*b*)

Improvements in the healing art have been of immediate, or remote dependence upon simple facts; and have proceeded, in order and combination, according to accidental events, from observers in various departments of science.

The correction of an error, or the demonstration of a single truth, relating to an operation of nature, has removed a doubt or difficulty which had retarded the progress of surgical knowledge.

Many discoveries, which are exhi-

(*b*) The Jacksonian Prize.

bited in the philosophical transactions as insulated facts, have proved essential links in the chain of causes and effects in the animal economy.

What man then can be so presumptuous as not to hold sacred every explored truth; as not to reflect, that, although its influence and relations cannot, at the time, be understood, a **NEWTON**, or a **HUNTER** may, at some period, arise, and stamp its character and place in the book of knowledge.

From meditation upon the talents and labours of distinguished anatomists and surgeons, who have directly advanced the science of their cultivation, reflections arise of practical im-

portance in anatomical and chirurgi-
cal pursuits.

Although a dissecting room be the proper seat of study for the pupil in anatomy; although an hospital be the duly assigned place for the investigator of the injuries and diseases incident to man; and, although the vast mind of a HUNTER, embraced and united, by splendid association, former discoveries with the truths of his own research; let preparative literature, and written founts of knowledge, be holden in due reverence and estimation; let the student experience delight from the classical pages of POTT, and be impressed with his citations from the works of ancient

authors, before he decides upon the advantages of learning and study.

The ancients, under the privation of anatomical knowledge, made observations upon the phænomena of diseases, with a degree of diligence, attention, and acumen, rarely expressed by modern investigators.

Certain writers of old may, accordingly, be consulted as excellent historians of diseases.

And, although their conjectures, relating to the seats, and symptoms of morbid affections, be generally erroneous; yet, their curative institutes, as founded in faithful observation, will frequently be of valuable reference.

Their works, performed in anato-

mical and physiological darkness, are eminent displays of power of mind, and faculty for observation.

Next to the promulgation of divine truths, the excellence of language appears in the transmission, through ages, of maxims and precepts, which relate to the preservation of health, and to the maintenance of life, in human beings.

The terms, ancient, and modern, may, in science, be considered as relative to states of knowledge, more than to periods of time.

Science, of every distinction, has moved with unequal pace; according to the force of occurrences of acceleration, or of retardation.

Events have happened, from which has suddenly burst forth the strongest light of improvement.

The demonstration of the circulation of the blood, by HARVEY; and the determination of facts, relating to the general existence and the varied functions of the absorbent vessels, by HUNTER; cast into ancient ground of error and ignorance the days of antecedent periods.

And other discoveries, and labours, thus constitute brilliant eras in anatomical, and chirurgical annals.

The teacher who, in his theatre, demonstrates the structure, and explains the uses of the organs of the human body, is the primary agent in the design

of cultivation and promotion of anatomical and physiological knowledge.

The anatomist who has in such manner devoted his talents through life, is entitled to a grateful effusion from men in whose affections are woven the honour and interests of anatomy and surgery.

The writings of this class of benefactors to science, if not many, are interesting,

Lecturers have, generally, announced their discoveries, and their ideas of improvement, as they have arisen; and have confided to their pupils, the task of application, of comment, and of public promulgation.

There have, however, been men

equally illustrious for their labours in the theatre, the dissecting room, and the study. The works of **MONRO**, and of **WILLIAM HUNTER**, are fine illustrations of the excellence of anatomical knowledge.

General reflections must here cease.

The particular task of this day is, to raise into animating view and consideration, the examples of men, whose investigations have corrected error; have established elementary truths; have produced light upon hidden operations of nature; have explained her secret laws; have extended the sphere of natural knowledge; have conduced to establish the

empire of facts; and have, consequently, contributed, in an eminent degree, to the happiness of mankind.

The tribute of respect has been here rendered to the memory of WISEMAN, as a splendid illustrator of the proper character of surgery (*c*)---by a perspicuous historian of distinguished cultivators of the healing art; a firm supporter of the scientific rank of surgery; a discriminative panegyrist of men, who have best maintained its dignity, and manifested its utility; by him who led the way, and smoothed a tract for future annalists; by him whose works

(*c*) Wiseman was Serjeant Surgeon to King Charles II.; to whom he dedicated his Treatises, printed in the year 1676.

on subjects of natural knowledge give lustre to the College, whose munificence shines in its possessions.

But WISEMAN may be further adduced, as an example of distinctive qualities in writers on surgery.

His histories are clear and impressive. His writings generally, are in the style of a scholar, in the true spirit of surgery. They are rich in observation; and merit attention as bearing the genuine stamp of truth and sincerity.

The influence of his elevated station; his opportunities of inquiry derived from the superstitious notion of the day; and his disposition for accurate observation; enabled him to render

his descriptions of strumous affections of estimable consideration.

His reasoning can rarely be supported by principles of improved science: and his practice will not in many cases be approved by judges of the simplicity of modern surgery.

But, the merits of a writer are relative to the existing knowledge of his time; and, by this test of consideration, the labours of WISEMAN point an era memorable in the annals of surgery. (*d*)

(*d*) In the Court Room of the College is a fine portrait of Wiseman, supposed by Sir Philip Girbier; there are, also, portraits of Cowper; Cheselden; Sir Cæsar Hawkins, Bart. by Hogarth; Belchier; Middleton; a *bad* copy of a portrait of Pott; and a portrait of Warner: all gifts to the College.

Also, in the Library, are benefactions of busts, in plaster, of Cheselden, and Belchier.

A *good* portrait, and a bust, of Pott are much desired.

Portraits, and busts, of other distinguished anatomists and surgeons, would be highly acceptable.

Although a long period elapsed, from the days of WISEMAN, before a luminary arose to spread much new light over the region of chirurgical science: yet many men laboured, in various ways, through this space of time; and their accumulated light has manifested the success and value of individual endeavour.

The advantages which result from accurate and comprehensive anatomical knowledge, are variously expressed.

Physicians who have been early initiated in the principles of surgery, with the view to the practical application of them, have been distinguished, by

their writings, for clearness of ideas, and solidity of judgment.

Dr. WILLIAM HUNTER was early, a member of the Corporation of Surgeons. (*e*)

The feelings of his surviving pupils will vibrate to his name: it will enliven in their memory, the suavity and impressiveness of his manner, in the demonstration of the structure, and the elucidation of the functions, of the organs of the human body.

His controversial, and other writings, are eminent displays of a genius for anatomical research, and for literary expression of its result.

(*e*) William Hunter appears to have been admitted of the Corporation in 1747.

His account of the deciduous membrane; and his explanation of the progressive changes of the gravid uterus; constitute a work of high intrinsic value.

The radical truths which he planted in the minds of his numerous scholars, have widely ramified, and flourished, and produced abundantly fruit of science, to the honour of this College and of the nation.

GLASGOW will bear grateful testimony to his labour, and munificence, in the promotion of anatomical, and general knowledge.

He merits a perpetual memorial of gratitude, for a special service to science. He touched the latent spark

of disposition ; and raised, and fed, that flame in JOHN HUNTER, which has shone with corrective light through dark mazes of error, has dispelled the cloud of ignorance which involved animal creation.

The FOUNDER of an HOSPITAL in the metropolis devotes munificence to extensively beneficial purposes. He raises an asylum for wretched fellow creatures ; and is thus an immediate agent of humanity : he establishes a school in the healing art ; and is thence an instrument of blessings to all the communicating inhabitants of the earth.

If such a benefactor to the world, were a member of the body of sur-

geons, he must be within the compass of liberal notice upon this commemorative occasion.

JOHN HARRISON was the principal founder of the **London Hospital**; to which establishment he was the first surgeon.

His bust, in the hospital, records these facts, in honour to his memory. (*f*)

DR. ROBERT MACLAURIN explained, in lecture only, his observation of the separation of the vas deferens from the spermatic blood vessels, in many cases of hernia of long duration.

(*f*) The first meeting of the founders, formally recorded in the annals of the London Hospital, was holden on the 23d. of September; and John Harrison was unanimously elected surgeon to that institution on the 21st of October; 1740.

A fact never to be forgotten by an operator on bubonocoele.

The name of MACLAURIN calls up sentiments which must have utterance.

Dr. MACLAURIN was many years a lecturer on anatomy and physiology in this metropolis. He was an accurate and faithful teacher; an artless, and honest man. The recollection of the truth, and simplicity of his character, renews feelings of gratitude and respect. (g)

JOHN RANBY, in his treatise on gun-shot wounds, affords a striking

(g) Dr. Maclaurin died on the 16th of January, 1814; aged nearly eighty-three years.

expression of the state of surgery, at no remote period.

The cases in his work are drawn with manifest fidelity ; and may, therefore, be of useful reference.

But his doctrines of extensive incision, and of other modes of procedure, a student, initiated in the principles, the mildness and success of improved surgery, will be surprised to learn were ever rules of practice. (*h*)

The splendid contributions to the fund of anatomical, and chirurgical learning, by **WILLIAM CHESELDEN**, have been celebrated in this theatre.

(*h*) Ranby was Serjeant Surgeon to King George II. ; and was the first master of the Corporation under the authority of the act of parliament in 1745.

His works express the immediate alliance of anatomy and surgery. They abound with pathological observations, and operative remarks; which so naturally arise, and are of such demonstrative excellence, as to be entitled to the highest regard.

Yet, even CHESELDEN, in his field of special culture, osteogeny, left several parts for future more successful cultivators.

A lesson this against the vanity of supposing perfection in any design. (*i*)

SIR CÆSAR HAWKINS, Bart. has, also, here received the due memorial of respect.

(*i*) Cheselden was Master of the Corporation in 1741. He died in 1752.

But he, too, may be allowed a passing compliment.

What immediate benefits has surgery derived from his invention of the cutting gorget! What advantages in lithotomy have been consequences of reflection upon that instrument! (*k*)

JOHN BELCHIER made a communication to the Royal Society, of the reception from the intestinal canal into the circulating system, of the colouring principle of madder; and of its separation into the cellular fabric of bone.

His discovery has been applied in

(*k*) Sir Cæsar Hawkins was elected Assistant in 1747. He was Serjeant Surgeon to King George II. and to his present Majesty.

the elucidation of the functions of secretion and absorption; as a test in experimental inquiry; and will express how important a solitary fact may prove in the cultivation of natural knowledge.

John Hunter, always observant of what could favour his constant pursuits, employed this discovery in aid of investigations relating to the forms of bones in the progress of their growth. (*l*)

SAMUEL SHARPE was an eminent example of industry in the pursuit of knowledge.

Agreeably to the custom in his day, a consequence of the favourable

(*l*) John Belchier was elected Assistant in 1751.

sentiment generally entertained here of the state of chirurgical knowledge in France, he resorted thither; and became accurately informed in the opinions, and operative modes of practice, of the distinguished surgeons of that nation.

Not any prejudice should influence a philosophic mind---should damp the ardour of rational inquiry.

National pride is the aggregate of general individual pride; which, if from the supposition of pre-eminence in knowledge, will terminate in general individual ignorance, and national disgrace.

Every country may, at some time, boast of discovery, invention, improve-

ment, or favourable result of experiment, or investigation, worthy universal attention.

Perhaps, at an auspicious period, this College may institute an endowment for enabling certain students, to travel, to collect, and bring home fruits of science from foreign regions.*(m)*

(m) This suggestion, by an highly esteemed member of the court, might, in the opinion of the author, be carried into effect, to a considerable extent of contemplated benefit, without difficulty.

A student, of proper talents and disposition for the undertaking, intending to visit the Continent in pursuit of natural knowledge, especially of information relating to improvements in surgery, and possessing means of maintenance abroad during the period of at least one year, would be stimulated to active inquiry, in the direction which should be pointed out for his guidance, by the prospect of an honorary reward.

If, accordingly, an HONORARY PREMIUM were offered by the College every third year, there can be little doubt that proper candidates would present themselves upon every occasion.

The critical inquiry of SHARPE evinces so much knowledge and reflection, and is written with such spirit, that it will always be read with lively interest.

His work on the operations of surgery, is executed upon the best model for such an undertaking: and, with its introduction, digested according to existing improvements, would, at this time, prove an acceptable manual.⁽ⁿ⁾

The writings, and munificent deeds, of departed men, examined at various periods, appear with different degrees of strength and colouring. Early, they have the light, and proportion, of objects at a short distance;

⁽ⁿ⁾ Samuel Sharpe was elected Assistant in 1752.

in succeeding time, as in perspective, more distinctly relative to surrounding objects.

At first they are meditated upon with strong personal feeling, and thence, perhaps, with biassed judgment; at length they are dwelt upon with calmness, under the sole sway of truth.

At such a period the speaker will contemplate the works of him, in whom were associated, in rare proportion, learning, science, talent, and operative dexterity.

The nature, and degree, of the improvements in surgery, by **PERCIVAL POTT**, cannot be understood, and duly estimated, without clear ideas of

the state of surgery in this country, before the light of his labours.

His works afford illustration of all the characters of finished composition: they manifest, that perspicuity and strength, in the language of science, are assisted in their effects by the other attributes of good writing.

They would be read with pleasure, for their beauties, independently of the intrinsic value of the truths which they contain: they would be resorted to with satisfaction, for scientific information, without the attractions of their language.

His anatomical, and physiological knowledge was generally sound and comprehensive: whence, his observa-

tions upon subjects of injury, and of disease, were made correctly; and arranged judiciously for his valuable purposes of application.

His zeal for the acquirement, and the improvement, of professional knowledge, is expressed in his writings; which abound with apposite facts, and illustrations, from learned authors.

The catalogue of the chosen volumes of his study, merits the consideration of persons, who, whether from a sense of duty, or from munificent disposition alone, shall be inclined to promote the bibliothecal designs of the College.(o)

(o) *Authors referred to in the Works of Percival Pott:—*

Albucasis; Ambrose Parè; Andreas a Crucè; Archigenes; Bertapal; Berengarius Carpensis; Bilguer; Brunus; Celsus;

His ideas were strong, and elementary.

His reasoning upon fistula lachrymalis applies to all occurrences of obstruction in tubular organs.

His operation for fistula in ano, is appropriate to a fistulous condition of any part of the body.

His proposed positions in fractures, and conduct in dislocations, are direct consequences of reflection upon the

Cheselden; De la Faye; Dionis; Du Verney; Fabritius Hildanus; Fabritius ab Aquapendente; Faget; Fallopius; Galen; Garengot; Guido; Gulielmus de Saliceto; Heister; Hippocrates; Lanfranc; Le Dran; Lowe; Monro; Morgagni; Mukreen; Munnicks; Muys; Oribasius; Paulus Ægineta; Petrus e Largelata; Petrus e Marcheti; Petrus Paaw; Platner; Rhazes; Richter; Rolandus; Ruysch; Severinus; Schenkus; Siculus; Theodorus; Tissot; Turner; Van Swieten; Verduc; Wirtz; and Wiseman.

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effects of the action of muscles, in any given injury.

His remarks upon the division of the tunica vaginalis, illustrate, generally, the effects of a similar procedure, in condensed membrane, and cellular substance.

His histories of the consequences of injuries of the head, are fine examples of exact and forcible description.

His attention was constantly directed to the designs of nature: and his pen was her ready instrument of expression.

If increased knowledge of absorbent agency, and of the effects of vast reduction of the power of the heart

and arteries, has, since, suggested to another faithful expositor of the operations of nature, improvement in the treatment of fracture of the scull; that impugns not the principles upon which the practice of Pott was founded.

The effects of issues in disease of the spine, have led to the favourable application of them, in disease near to the vertebral canal, and in other parts of the body.

His descriptions of the various species of hernia, and his suggested processes of relief, will remain standards of practice, unshaken by the noble displays of anatomical ingenuity, of accurate observation, and of solid re-

flection, of living ornaments of this College.

His remarks on cataract will retain their commanding character, unweakened by discovery, however curious in its nature, and interesting in its application.

His operations were conducted, for general information and benefit, in the dignified style of hospital practice: and his promulgations were prompt, without reservation.

His account of the disease, termed cancer of the scrotum; his observations on polypi; all his works are expressions of the happiest combination of faculties for the improvement of chirurgical knowledge.

By the lot of human nature, few men can now record his talents as a lecturer: and vain would be the attempt, upon this occasion, to describe the elegance of his language; the animation of his manner; the preceptive force, and effect, of his truths, and doctrines.

Well may he be holden in memory as one of the brightest ornaments of St. Bartholomew's Hospital. (*p*)

What national expression of gratitude, what tribute of respect, should not be decreed in memorial of men, who were high in the scale of learning, of science, of genius, of integrity; who devoted their endowments of nature, and their attainments by labour

(*p*) Percival Pott was elected Assistant in 1756.

and study, to the interest and honour of their country, to the benefit of mankind!

The chirurgical work of WILLIAM BROMFIELD has that estimation which will attach to every practical performance. He has a claim, particularly, to a memorial, for his adaptation of a familiar instrument, to the important purpose of enabling an operator, effectually to separate, extend, and tye, a divided artery. (*q*)

From the use of the tenaculum reflections have arisen, of great weight in surgery; relating to pain, spasm, fever, and hemorrhage, after operation, or injury.

(*q*) William Bromfield was elected Assistant in 1760.

This instrument has occasioned suggestions of different methods of making ligature upon a blood vessel, distinctly from contiguous nerve, and muscular fibre.

It has accordingly been complicated; but with specious more than real advantage.

Not any instrument should be constructed with the design of supplying the use of the fingers, while they can perform the required office.

The detachment of the arterial investment can, generally, be effected by the fingers better than by any instrument.

The more simple the construction of an instrument, the more useful

will be its application, by the complicated faculties of the hand, guided by sound judgment. (*r*)

JOSEPH WARNER contributed to the fund of chirurgical information, a work on cases in surgery.

The truth of his observations may be depended upon; for his motives of action were pure and honourable.

His pages will be referred to with interest, as expressive, in a great degree, of the opinions of surgeons in his day of observation.

His account of the effects of the application of agaric, in hemorrhage,

(*r*) The elastic or dissecting forceps has been long used at the London Hospital, in general preference to every other instrument, in separating and tying arteries, in amputations and other operations.

merits the attention of inquirers into the principles of stypticity. (*s*)

Reflections here arise, the language of which may excite feelings favourable to the final intention of this commemorative ceremony.

As integrity of disposition ranks first in the assemblage of qualifications in a writer upon subjects of anatomy, and surgery; to whom students in the healing art look for the light, and guide of truth; from whom every man expects a ray of hope, in bodily disease, or injury; what ignominy should rest upon the head of him, who violates truth; who becomes the conscious

(*s*) Joseph Warner was elected Assistant in 1764.

instrument of deception; the willing leader into paths of error---of danger, of death!

Never may such a being contaminate, by his presence, this Theatre; never be enrolled in this College: if such be ever found in the catalogue of its members, may his disgraceful name be instantly blotted from its columns!

HENRY THOMSON was well versed in anatomical knowledge, and a most dextrous operator.

Decisive in his judgment of the parts to be divided, he made his incisions with scientific boldness.

Imitation, by ignorance, of his operative skill, would be criminal presumption.

His description of a case of *Mollities Ossium*, in a volume of communications, will always be of valuable reference to the contemplative physiologist.

The engraving annexed to that paper, executed from a correct drawing, is a fine study from nature, of the distortions, and changes of figure of the whole body, according to the various powers, and occasions of action, of the muscles, unrestrained, and undetermined, by bony resistance. (*t*)

His account of the appearances, upon the dissection of a dislocated shoulder, in the same collection, af-

(*t*) London Medical Observations and Inquiries: Vol. V. p. 259.

forded new light upon the subject of dislocation.^(u)

Establishments, formed for the publication of cases and dissertations, have proved very conducive to the improvement of chirurgical knowledge.

They are beneficial, by keeping alive attention to interesting events, and by affording opportunities of communicating them to the world; they prove stimulants to industry, and to the exercise of genius.

How many facts, and the estimable results of them, have been promulgated by such bodies!

^(u) Henry Thomson was elected Surgeon to the London Hospital in 1753; and resigned that office in 1780.

Surgeons are continually in the way of occurrence, and observation, of important consideration.

Benefits to science are acknowledged by her true votaries, without distinction of person or nation, without allowing prejudice to restrain the due praise, or to have weight in the balance of just estimation.

The memoirs of the Academy of surgery of Paris, present the example of a work of compilation highly honourable to French industry and talent.

This College contemplates the employment of its fostering powers, and the talents of its ingenious members, in the design of cultivation, and im-

provement, of anatomical and chiralurgical knowledge, by the publication of transactions.

WILLIAM SHARPE, moved by frequent occurrences of fracture of the leg in persons remote from their habitations, in his humanity invented splints, of excellent contrivance for readiness of application, and prevention of distress and danger from distant removal. They are described in a paper in the Philosophical Transactions.

An improvement in science or art gives that impulse and direction to thought, which always extend the benefit.

Many useful expedients, for the re-

tention of fractured limbs in their proper position, have been consequences of reflection upon the splints suggested by this amiable man. (*x*)

His surviving family, and confidants, particularly a member of the Court, whose availing endeavours for the interest and honour of the College are incessant, authorized by the liberal intention of their departed relative, and friend, and impelled by their own favourable sentiments, presented, for the Library, such part of his collection of books as related to subjects of anatomy and surgery.

The recital of this exemplary gift suggests a general appeal to the wis-

(*x*) William Sharpe was elected Assistant in 1773.

dom, and the liberality of zealous promoters of the healing art.

The utility of a collection, in the College, of the works of the best authors, relating to anatomy, surgery, and general natural knowledge; the common interest of its members in such an object; and the declared solicitude of the Court for the attainment of it; are considerations which may, in reason, be expected will influence men of munificent spirit, who can nobly extend their views in society according to the exigencies and calls of science, to devote to public benefit some of those volumes from which they have derived their own ample supply of knowledge.

The tribute of acknowledgment is due, and will be rendered by more able annalists, to many other successful cultivators of anatomy and surgery.

And, doubtless, many benefits to science, and to the College, have not been noticed in this effusion of gratitude to the memory of benefactors.

The scientific productions, and munificent acts, of living friends to this College, are not within the compass of the commemorative task: else, a work upon morbid changes of structure in organs, would have been expatiated upon with that degree of respect which is due to a design of such unaffected dignity, and intrinsic

value. And many other splendid efforts of genius, talent, and labour, which will grace future memorials, would have been dwelt upon with delight, as expressive of the highly cultivated state of surgery in this country, at the present day: the consequence, principally, of Hunterian promulgations, and doctrines, embraced and promoted by the authorities of the College.

May the period of the eulogies of such living ornaments to surgery, and to their country, be long, long to come!

Reflection has thus proceeded to a page, in the annals of the College, which will be ever memorable.

The **NEWTONIAN ERA** will be brilliant, through time; for the establishment of the laws of union, and separation; of rest, and motion, of matter: and of the movements of the planetary bodies.

The **HUNTERIAN ERA** will be as illustrious to this country; for the exposition of the laws of union of the vital principle, with common matter, in animal creation; and of the laws of action of the moving powers, in animal bodies.

NEWTON informed and elevated the mind of man, for the contemplation of the most august objects of the universe.

HUNTER communicated to the world,

truths which enable mankind to judge correctly of the relations in animal forms: of the designs of animal agencies: of relative perfection in animal organs: of the influence of various causes, in the maintenance of life: of the condition of the sensitive parts, and of the grand sensorium, in man, for the reception of impressions from surrounding objects; and, for such reflections upon them, as conduce to the ordained ends of his existence, and to the dignity of his nature.

Men draw conclusions, from accustomed feelings; and usual combinations of ideas.

From the contemplation of the scientific character of **HUNTER**, feelings,

ideas and combinations of them, arise, such as rarely moved the mind before.

In what age, or country, existed a person, of disposition and mental powers, of bodily frame and faculties, so favourable to anatomical investigation, as met in this philosopher; and in whose pursuits occurred such encouraging facilities, and resources!

In every man there is original disposition; which determines, and distinguishes his character; which impels with various degrees of force.

That of HUNTER surpassed, in strength, and steadiness of determination, former instances of abstract devotion to anatomical research.

But, however favourable disposition

may be, it should be combined with clearness of judgment, in the direction of the steps to an object: as the least deviation from the line of truth, would, necessarily, diverge into error, and perplexity.

A brief examination of the results of the labours of HUNTER, will shew how felicitous he was, in the paths he took to the objects of his pursuit.

Besides original, the nature of man admits of implanted disposition: as the chords of different instruments may be brought into unison, and be made to correspond in vibrations.

Thus the characters of men in society become influenced by great examples.

The example of HUNTER has excited to action predominant inclination, in some; and has planted congenial desire of information, in other men; to the honour of this nation, and age, and to the increasing benefit of mankind---Considerations, expressive of the advantages which may proceed from the celebrations in this Theatre.

His labours; in demonstration of the energies of the vital principle, in the organization, and functions, of animals; in elucidation of obscure processes, of animal agency; in illustration of changes of structure, and office, in morbid conditions of organs; and, in explanation of the effects of extraneous matter, applied to the

moving powers; are unparalleled, in extent, and moment.

He proved, that the words of the sacred lawgiver, "*the life of the flesh is in the blood,*"(y) express a physical truth; of cardinal importance in physiology, and pathology.

He presented the light of his observations upon inflammation, and sympathies: and students fled from the dark avenues of hypothetical error.

His opinions, and doctrines, were deductions from manifold observations, experiments, and inquiries; not assumptions, framed into hypotheses, and asserted by appropriate jargon.

His writings are unostentatious dis-

(y) Leviticus: chap. xvii. ver. 2.

plays of processes of nature, relating to the formation, preservation, and decay of animal beings: and, to the energies of their various organs, in the reparation of their injuries, and the continuance of their existence.

An enumeration only of his works, will revive ideas of their interest, in the minds of such persons as have considered the subjects of them; and will excite in all, sentiments of admiration, gratitude, and respect.

He communicated to the world, observations---

On the blood: on inflammation: on gun-shot wounds: on the teeth: on the solvent property of the gastric juice: on the electric organs of the

torpedo, and the gymnotus electricus:
on certain receptacles of air, in birds:
on the gillaroo trout: on the animal
and vegetable powers, relating to heat:
on the recovery of persons apparently
drowned: on the free-martin: on
the communication of small-pox to
the fetus in utero: on an extraor-
dinary pheasant: on the organ of
hearing, in fishes: on the effects of the
extirpation of ovaria: on the species
of the wolf, the jackall, and the dog:
on the structure, and economy of
whales: on bees: on inflamed veins:
on the mode of conveying substances
into the stomach, in palsy of the œso-
phagus: on the venereal disease: and
on muscular action, in various croo-

nian lectures read before the Royal Society.

His decisively successful operation in popliteal aneurism, ranks first in the class of improvements in operative surgery: and, in the series of facts, which have led to the establishment of elementary truths, relating to powers, and resources, in the circulating system, of extensively practical utility.(z)

His discoveries closed demonstrative investigation, with relation to the absorbent vessels. The admission of

(z) The importance of this improvement in surgery is heightened in the mind by the reflection, that the illustrious Pott entertained the opinion, that, although the operation of tying the popliteal artery, in the aneurism of that vessel, did sometimes succeed, amputation was generally advisable.

their existence, as necessary constituents in every part of an animal machine, naturally followed; and enabled him to explain, in lectures, and in writings, such phænomena in animal creation, as depend upon the actions of the absorbent, and sanguiferous systems: all his original facts; his principles, and opinions; are entitled to the respect of the anatomist, the surgeon, and the naturalist.

If he adopted new terms; he applied them, as appropriate to new ideas.

Truth is of such a commanding nature; that even sceptics are moved by it, without consciousness of its influence.

So, with some controvertists of Hunter: they are induced to act, as upon the admission of his principles, which they deny; and to employ the terms of his adoption, which they deride.

His written labours, in preparation for an explanatory catalogue of his collection, express a mind, framed for grand design, fixed upon great benefits to science, and to mankind.

His truths, spread through voluminous pages, if reduced into aphoristical form, would instantly impress the mind with a sense of their simplicity, mutual dependence, beauty, and utility.

He, bent only upon the discovery,

or the elucidation of physical truths, for the information of the world, prepared, in the foundation for the Museum-Lectures, a perpetual memorial of his own merits.

Every lecture which shall be delivered in this Theatre will be illustrative of some fact, or doctrine, of his discovery, or establishment: and, consequently, will be commemorative of its author.

Let not successors to the honour of this chair, think, that appropriate subjects for the exercise of their superior talents will be exhausted: for, if other luminaries were not to rise, to shine, and to set, as mortality ordains; still, the examples of the powers of

the mind, and the faculties of the hand, of Hunter, will afford endless themes for commemorative orations.

PHILOSOPHERS: STATESMEN: NOBLES: and PRINCES: have here borne dignified testimony of respect for him; who, by the elevation of the scientific character of the kingdom, has added to the lustre of their rank and titles.

EUCLID demonstrated the science of the figure, and external property, of inanimate bodies: the knowledge of which is necessary for the attainment of certainty, in the arts and sciences, and in most occasions of life.

His demonstrations are in diagrams in the pages of his work.

HUNTER demonstrated facts, relat-

ing to animal bodies, and to the influence of the vital principle, the knowledge of which is necessary---to a clear conception of the most important signs, exhibited in animals, in the perfect condition of their organs; in the changes which they undergo from injury, and disease; and to the employment of means of comfort, and preservation.

His demonstrations are in the Museum of the College.

The mind of HUNTER was full of original truths, and comprehensive ideas. He panted for time only that he might unfold them to the world.

Happily: learning, science, talent, and genius, have shone forth in this

Theatre; in illustration of his principles, and opinions; and, in extension of his lines of facts, and doctrines.

Pupils of science! seek the paths illumined by HUNTER: study the works of his talents, and labour: receive the Light of his truths; multiply its useful rays, and reflect them to the world around! (*a*)

The ARTS, and the SCIENCES, have, at all times, moved harmoniously: and they delight in mutual benefits.

Acknowledgments are due to those Arts, which have contributed to the

(*a*) John Hunter was elected Assistant in 1789.

scientific designs, and to the dignity of the College.

ARCHITECTURE has completed an edifice, appropriate to the various uses of the **COLLEGE**, the **MUSEUM**, the **LIBRARY**, and the **THEATRE**; in a style, of classical taste, and expressive of national munificence.

PAINTING expresses the characters in the human countenance, of original disposition, and habitual qualities, of the mind and heart: whence, the portraits, in the **Court-Room**, sustain, in warm memory and useful intent, exemplary exercises of learning, science, genius, and humanity.

The graphic art has, also, embellished the **Museum**, and the **Library**,

and enriched their cabinets, with lively representations of products of animal creation: and has thus conduced to the improvement of natural knowledge.

The Theatre, devoted to the promotion of the healing art; and to the commemoration of works of science, and deeds of munificence; **SCULPTURE** has adorned with the bust of the **BEST** of **KINGS**: under whose auspices that Charter was obtained, which recognises and establishes the style and character of the College.

The **Cabinet-Room**, in which are deposited the rarest specimens of animal production, is, with perfect congruity, distinguished by the bust of

a liberal benefactor to the College, an effectual promoter of its public designs; to whom naturalists of every country yield the palm, the homage of gratitude and respect.

In the Museum, Sculpture has formed a contemplative bust of HIM; whose luminous mind, and matchless art, raised the surrounding collection: which will ever inform, and inspire inquirers into natural knowledge: which has promoted, in an eminent degree, the beneficial purposes, and the dignity of the College: which has raised this nation to a high point in the scientific scale of estimation: and which will be an example, to future times, of the most successful

application of genius, to the discovery,
and the elucidation of physical truths.

The impression upon your minds, of the imperfections of this commemorative performance, will, I hope, be softened, by the consideration: that, upon the next occasion, the intention of the founders of the Hunterian Oration; and the resources of learning, science, and talent in the College; will be adequately expressed, by my distinguished successor, **Mr. CLINE.**



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