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[William Henry Williams].**

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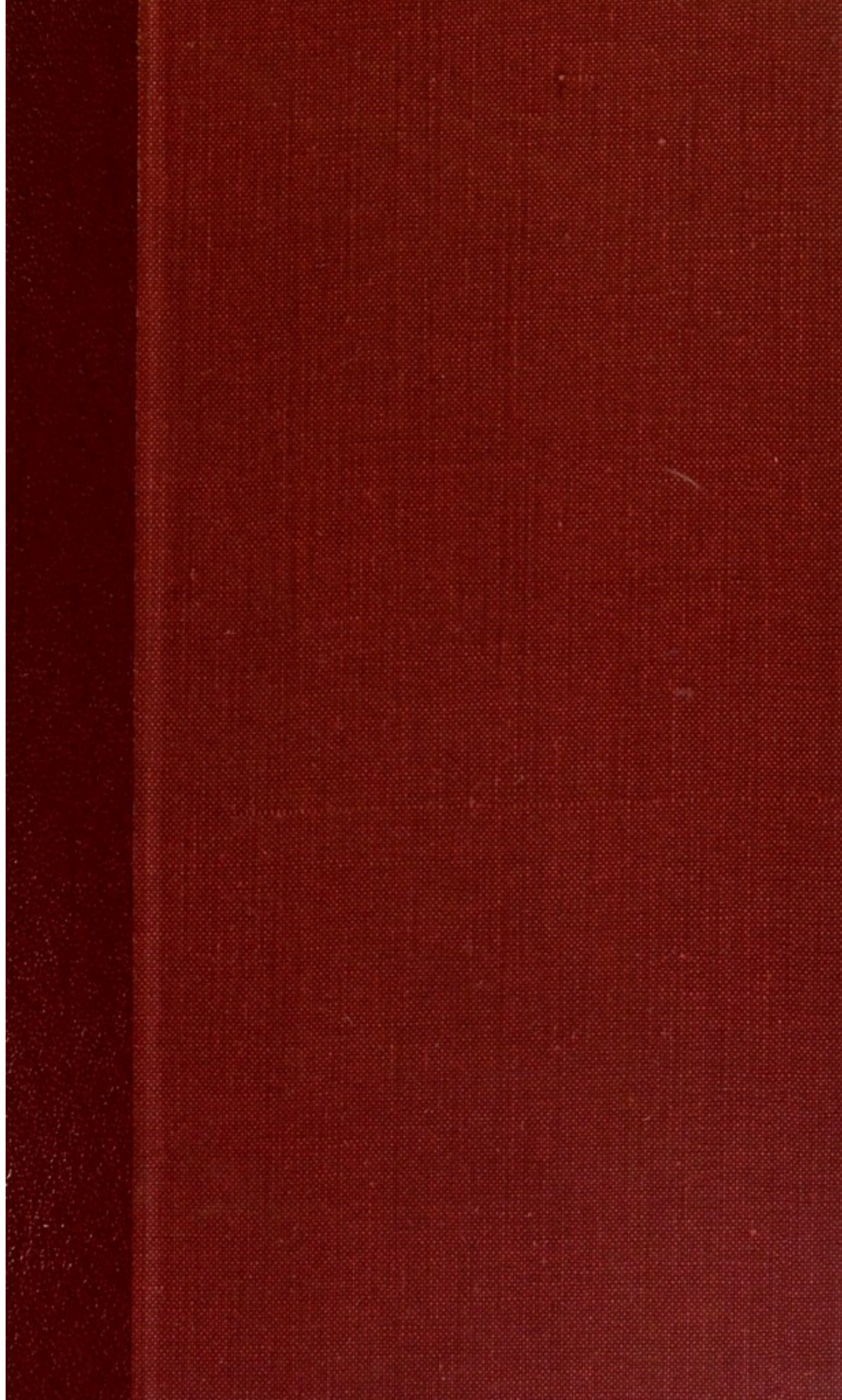
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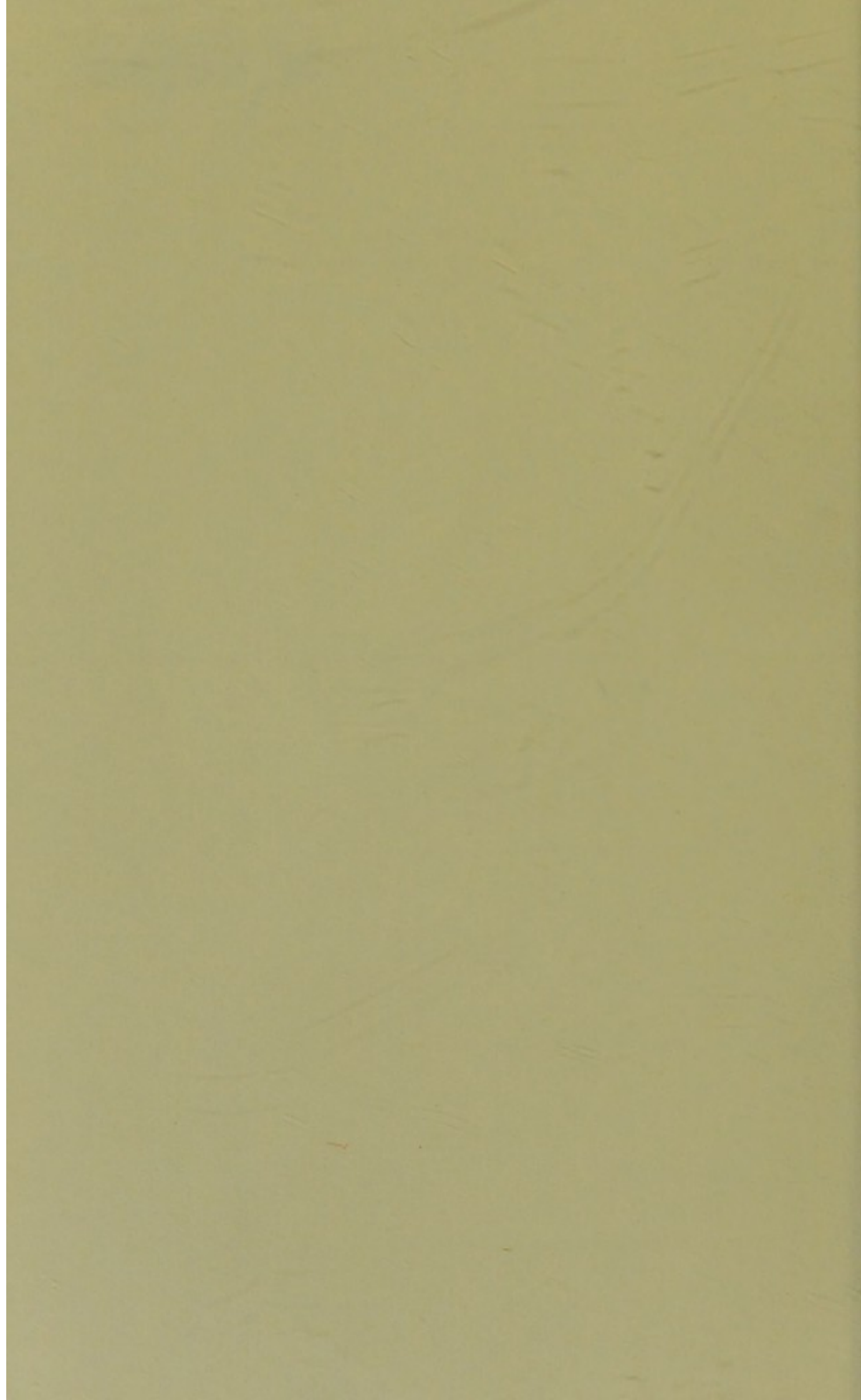


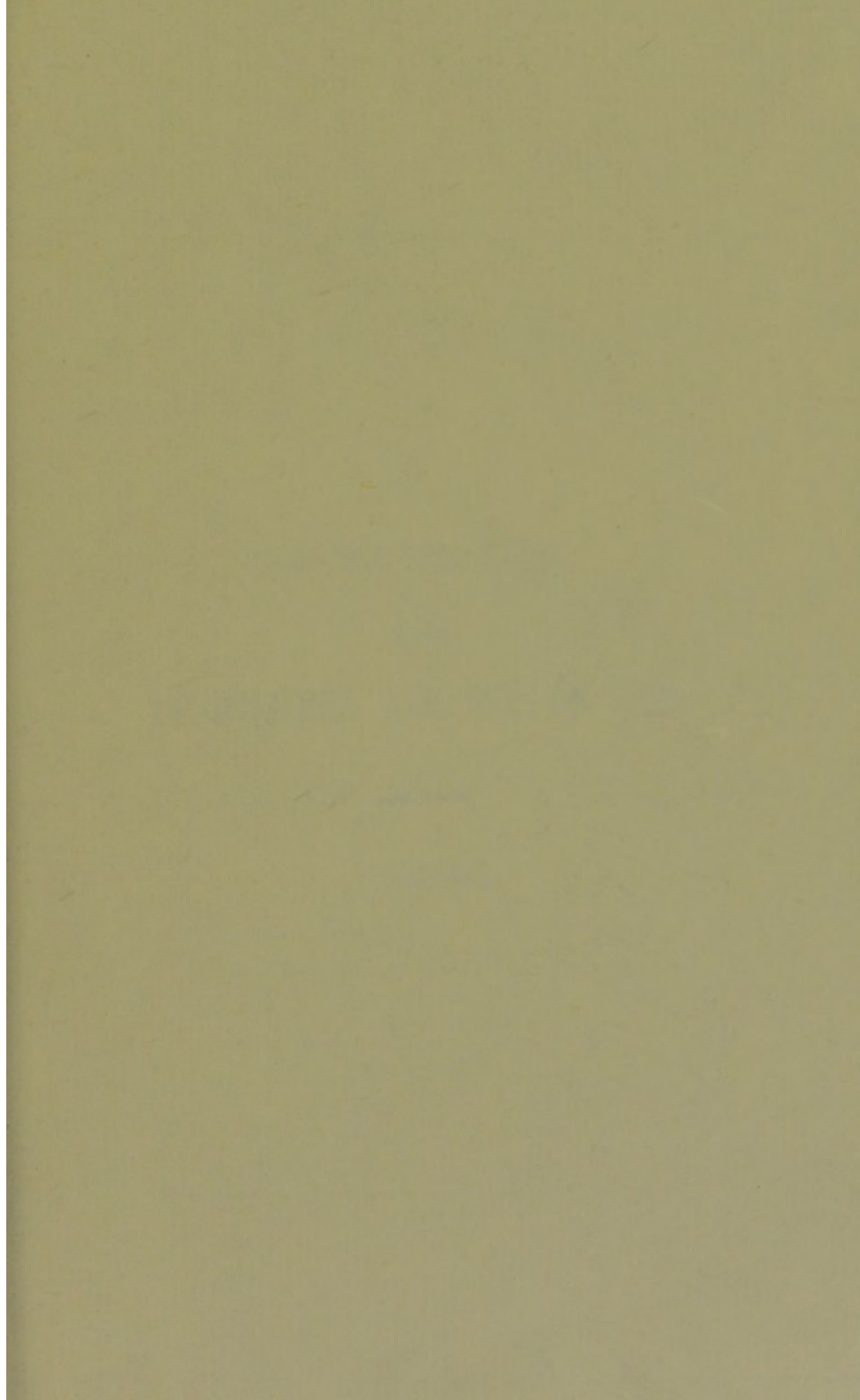
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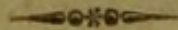


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CONCISE TREATISE

ON THE

PROGRESS OF MEDICINE.



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PROGRESS OF MEDICINE

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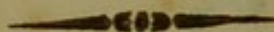
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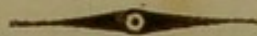


BY

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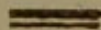


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TO DOCTOR CLUBBE.



DEAR SIR,

IT may be a novelty to see one Physician settled on the same spot, and a candidate for a portion of its practice, thus publicly addressing another in a dedication ; but I see no reason why candour should be proscribed in a profession, generally distinguished for liberal knowledge, and honourable from the rank assigned it in society. I seek, therefore, this opportunity of testifying my high respect for your professional reputation, and the sentiments of personal esteem, with which I am,

Dear Sir,

Your sincere humble Servant,

WILLIAM HENRY WILLIAMS.

Ipswich, January 1,
1804.

TO DOCTOR CLARK

It may be a matter of some importance to you to know that I have been thinking of you very much lately, and of the many things that have happened since we last met. I have been thinking of the many things that have happened since we last met, and of the many things that have happened since we last met. I have been thinking of the many things that have happened since we last met, and of the many things that have happened since we last met. I have been thinking of the many things that have happened since we last met, and of the many things that have happened since we last met.

WILLIAM ALFRED WILLIAMS

PREFACE.



THE following pages are a dilatation of the Thurstonian speech, delivered in Latin at Cambridge in 1802. I hope they may be found to mark the Progress of Medicine, from the time of Doctor Caius, in 1573, with as much accuracy as might be expected, from an endeavour so limited in its nature.

To have traced, without the omission of a single step, the paces by which each improvement in medicine arrived at its present state ; to have searched scrupulously for the advantages and disadvantages attending an exploded practice ; and to have pursued an analytical comparison with the practice adopted in its place, would have led to a variety of remark, and an extent of reading, which

it might, perhaps, have gratified vanity to display, but could not have rendered utility commensurate with the labour. Few trouble themselves with a retrospect of the tedious and gradual revelation of knowledge, of which it would now be disgraceful to be ignorant. I am not so presumptuous as to expect literary fame, but only hope that a fair emulation may confer on me the commendation of being an useful member of the profession to which I belong. If, therefore, the subsequent pages should not discredit me with medical men, and should merely evince to those who wish me well, that my professional pursuits are my highest pleasures, I am content.

ON THE
PROGRESS
OF
MEDICINE.

I HAVE the honour to address this learned body, by an appointment made in pursuance of the useful and benevolent wish of the late Dr. Thurston, on the Progress of Medicine, since this college and the medical world suffered a severe loss, in the death of their mutual ornament Dr. Caius.

The nature of this address will preclude the possibility of dilating, at any length, on the several diseases, now better understood, less dreaded, and remedied with greater simplicity, effect, and certainty, than in the period alluded to 1573. Nor shall I be able, in noticing the illustrious authors of the several improvements in the art of medicine, to do that justice to their high talents and meritorious industry, which their memory might claim from a copious and extensive dissertation; my

plan must therefore be restricted, rather to specify the eminent advances made in medical knowledge, and to assign to various learned and ingenious men their respective shares of merit and applause, than to detail the origin and progress of each improvement; or to trace the steps, by which its authors advanced to their professional celebrity.

The first name that presents itself as the benefactor of mankind, (after the days of Dr. Caius) is a name, which excites immortal admiration, and must be rewarded with eternal gratitude. In 1619 the great Harvey disclosed the *doctrine of the circulation of the blood*; which, whether we consider its theoretical beauty, or practical and momentous utility, erects a monument of fame to its author, which will endure, as long as genius, learning, and gratitude, are objects of human veneration. Galen, Vesalius, Servetus, Real-dus Columbus, and Cæsalpinus, are each entitled to an honourable notice, for their ingenious researches, and persevering experiments, to discover and illustrate the sanguiferous system; and it cannot be denied, that they unfolded many of its fundamental principles, and cast a considerable light on this important subject.

To enable us the better to appreciate the service rendered to science by Harvey, without detracting from the labours and merits of his predecessors, it is expedient to take a brief review of the respective discoveries of the latter, and, by that means, ascertain what remained to exercise the genius, and immortalize the reputation of the former.

Galen asserted that the arteries of the living animal always contained blood; that the left ventricle of the heart also contained blood; and even that a contraction of the arteries propels the blood into the veins. By these disclosures, and a minute description of the valves of the heart, though he was unacquainted with their powers and functions, he advanced the first step towards the true doctrine.

As we examine the history and progress of medicine, one prominent circumstance presents itself to the observant mind, and adduces additional proof of our limited wisdom, and the strong shade that darkens every picture of human attainments. So dazzled were the medical world with the splendid genius of Hippocrates; so confounded and paralyzed by the contemplation of his astonishing industry;

and so struck with awe and veneration, with the pure motive and sublime object of his divine labours, that for 500 years they knelt at his shrine, and placed their highest merit in an undeviating imitation of his practice, and an implicit faith in his precepts. Galen was the first man who at once did homage to his fame; but rightly considered the acquirements of his industry, and the discoveries of his genius, as guides in a path which might lead further on the road to perfection; or as a valuable glass, by means of which the secrets of the animal œconomy might be more accurately and minutely discerned. As if the order of Providence forbade an increasing and rapid progress towards perfection, so inviolable was the authority with which the opinions of Galen were received, that, for *centuries*, the medical world adopted his sentiments, pursued his practice, and made no effectual attempt towards improvement in the art.

A great physician and anatomist now appeared in Vesalius. He successfully pursued the study of anatomy, amid the greatest discouragements and obstacles; for dissections, in his time and country, were deemed illegal and impious. Indeed, his laudable

curiosity nearly cost him his life, and ultimately exposed him to a wretched end. Having opened the body of a young Spanish Nobleman, who was supposed to be dead, he was amazed to discern symptoms of life, in a slight pulsation of the heart. He was, therefore, not only accused of murder, but, lest his vast efforts and public merit should incline mercy to overlook his misfortune, he was accused before the inquisition, where sanguinary monsters proscribed mercy and charity with as much rancour, as though they had been the avowed enemies of Christianity !

Peter the 2nd, however, (to whom, and to Charles the 5th, Vesalius was physician) interposed his authority, and denied them to slake their insatiable thirst of blood, by the sacrifice of so illustrious a victim ; yet he was doomed to a species of banishment, on return from which he was shipwrecked, and lost his valuable life. He confirmed the assertion of Galen, that the arteries inclosed blood ; and proved, by experiments, a motion in the blood from the heart, towards the extremities, through the arteries. By making a ligature round a vein, he discovered that the blood, in the part *nearest the heart*, subsides ; and, by

by dividing an artery, he remarked that the motion of the blood ceased *below the division*. From a clue less guiding, and a light more obscure, one would imagine he might have proceeded further towards a full discovery.

About the same time, Servetus insisted on the communication of the pulmonary artery and veins; that, through them, the blood took its course from the right to the left side of the heart; that the blood pervaded the lungs, not merely for the nutrition of that part of the body, but for the purpose of being elaborated and attenuated by a *spirit inspired from air*, and the emission of a fuliginous matter in expiration. Had these latter assertions resulted from experiment, instead of being the offspring of ingenious hypothesis, what an important advancement towards the doctrine of the immortal Harvey had been ascribed to Servetus!

Realdus Columbus, a celebrated anatomist, though he erroneously esteemed the liver the source of the blood, and imbibed other errors of his predecessors, discovered and minutely demonstrated the valves of the heart. He asserted the impossibility of the reflux of the blood from the pulmonary artery into the heart, from the nature and structure of the

sigmoid valves ; and that the tricuspid valves, from their formation, prevented a return of the blood received by the right ventricle from the vena cava.

A very few years after, Cæsalpinus availed himself of the reasoning of Columbus, respecting the valves of the heart ; traced the blood through the lungs to the left ventricle, and thence to the Aorta, the valves of which prevent its return to the heart. He denied, however, that the blood, in its passage through the lungs, imbibed any spirituous nature from the air ; yet he must have been convinced for how short a time life exists without respiration. After various experiments, and much labour, he accounted for the tumefaction of a vein between a ligature and the extremities, by the supposition that the blood, when resisted by a ligature, returns to its source, "lest, by its being intercepted, it should be extinguished." From this, we observe, he had an imperfect notion of the circulation of the blood, though he had formed no just conception of the cause and consequences of this beautiful system. Thus the immortal discovery, and grand elucidation of the circulation of the blood was left for Harvey. His predecessors, after all their labours, might have

applied to the sanguiferous system, the words of Addison,—that it was

“dark and intricate;
 “Puzzled in mazes, and perplex’d with error,
 “Our understanding traces them in vain,
 “Lost and bewilder’d in the fruitless search;
 “Nor sees with how much art the windings run,
 “Nor where the regular confusion ends.”

Although a distant view was thus obtained of the true system, deep-rooted errors, and prejudiced inconsistencies blinded the penetration of learning, and intimidated the darings of genius. Unrestrained by the authority of the celebrated labours of others; unshackled by errors almost sacred by time, Harvey applied the whole force of his genius, learning, and industry, to discover the sanguiferous system, to the inestimable benefit of the human race! Before this vast acquisition of medical knowledge, the general causes of disease must have been egregiously misunderstood, and their treatment capricious or destructive. Success with a patient, in a vast portion of cases, was more the lucky chance of a lottery, than the result of confident skill. In brief, to use the words of a kindred genius, the great Boerhave, “The immortal Harvey, “by the discoveries which he demonstrated,

“overturned the whole theory of the ancients,
 “and founded physic upon a new and more
 “certain basis, upon which it at present rests.”

The blaze of light emitted from this discovery, penetrated the deep recesses of medical research, and yielded a clear view of what before had been imperfectly or delusively seen; and disclosed works and secrets of nature, which must otherwise have for ever remained totally unknown. Envy assailed him in his native land, and from foreign shores; but he met its rancour with mild confidence, and destroyed the activity of *venom* with the *innocence* of oil. “I will overcome,” said that great man to his detractors, “all opposition by “truth.” It is pleasing to reflect that his declaration was verified; and that he lived to see “the clamours of envy, ignorance, and prejudice silenced.”—“Professional men grew at “last ashamed to own, that they had ever “combated or disbelieved the circulation of the “blood.”—(Philosophy of Medicine, vol. 1.) This system, as disclosed to the world by Harvey, will serve to impress the ingenious with humility, and the religious with awful veneration: it is one of the millions of objects which proclaim a divine, all-wise, omnipotent Creator. Indeed, it is related of Harvey, that, as he became acquainted with the wonders of

nature, he advanced in piety, and increased in modesty. It is highly probable, that had not the proofs and elucidation of his immortal discovery, combined with the claims of his private practice, consumed nearly the whole of his valuable life, that the celebrated John Hunter would have been deprived of that portion of admiration, which he obtained by demonstrating *the vitality of the blood*.—We cannot suppose the mind of Harvey, so richly adorned, and so nobly directed, would have been content with the frequent declaration of the vitality of the blood, and resign the experimental proofs of the doctrine, to dignify the character of Hunter. That he sincerely believed the vitality of the blood, is evident from various extracts from his works. “Inde concludimus sanguinem per se vivere.” (Dissertatio 22.) “Hinc quoque apparet sanguinis *principalitas*, quod pulsus ex eo ortum ducit. Nec sanguis solum pars primigenia et principalis dicendus est, quod ab eo motus pulsusque principium orietur; sed etiam quia in eo primum *calor animalis* innascitur, *spiritus vitalis* ingeneratur et *anima ipsa* consistit!” (Harv. Exer. 51.)

Here, then, it is observable, that whilst exploring the grand object of his ambition

and benevolence, other subjects intervened ; —his imagination glanced at the vitality of the blood. He waited not to exercise his penetration, and improve the suggestion, because one grand aim was too dear and delightful to his mind, to suffer any considerable diversion to *Minor Desiderata*. Surely, when Hunter read the above selected sentiments of Harvey, he must have been led to ruminate on the alliance which good fortune entered into with merit, to reserve this laurel for him.

The doctrine taught by Harvey is—
 “That all the veins of the body falling into
 “*two trunks, viz. the ascending and descending,*
 “*cavæ, empty themselves into the right auricle*
 “of the heart. *The right auricle unloads into*
 “*the right ventricle of the heart, which throws*
 “the blood through *the pulmonary artery* into
 “*the lungs, by its two branches, which go to*
 “the *right and left lobes.*”

“From *the lungs* the blood is brought
 “back, by *the four pulmonary veins, into the*
 “*left auricle, and from thence it passes into*
 “*the left ventricle, by which it is distributed*
 “through *the body* by means of *the aorta* and
 “its branches. *These terminate in the veins*
 “of the body, which collect the blood and

“bring it back to the heart by the *two cavæ*.”
Or, in other words,—

“That the *heart* is divided into *two parts*
“by a *longitudinal, fleshy* separation. These
“*two parts* are formed into *two cavities* by a
“*lateral membranous valvular* separation.”

“The *veins*, (the *two venæ cavæ*, and the
“*four pulmonary veins*,) enter the *two upper*
“*cavities*, or *auricles*, and the *arteries*, (the
“*aorta*, and the *pulmonary artery*,) go out
“from the *two lower cavities*, or *ventricles*.”

“When the *auricles* contract, the blood
“is driven into the *ventricles*; and when *these*
“contract, it is forced into the *arteries*.”

“Thus commences, in fact, the *double cir-*
“*culation of the blood*.—The *arteries*, (the
“*aorta and the pulmonary artery*,) contract,
“and the blood flows from the *right division*
“of the heart through the *lungs*, to enter the
“*left division of the heart*:—and from the *left*
“*division of the heart*, the blood passes through
“the *various parts of the body* to enter again
“the *right division of the heart*.”

Another important labour of Harvey

was a work "on Generation;" in which he unites patient and accurate observation, with practical and philosophical remark. His chief information he derives from the example of the Hen and Chick; and endeavours to ascertain the nature of conception, and to discover the origin and progress of the new animal, by a daily inspection of the egg during the time of incubation. From the dissection of Deer during the various stages of pregnancy, he draws a conclusion, that "the foundation of viviparous animals differs not from that of birds."—"Qua propter in ovo cujuscunque pennati animalis perfecto et bicolore (ex vitello, nempe, et albumine composito corticeque donato) ut easdem partes, ita eodem quoque modo atque ordine, fœtus omnes gigni & fabricari, quo in ovo gallinaceo, observavimus." (Exer. 62.)

His loyalty exposed him to danger and difficulty during the civil war, and deprived the public, as is reported, of the following works, which were lost in the plunder of his house, viz.—*A Practice of Physic, conformable to the doctrine of the circulation*—*Observationes de usu Lienis*—*Observationes de motu locali*.—*Tractatus de Pulmonum usu et motu, &c.*—*Tractatus de Animalium amore, libidine et*

coitu.—Observationes Medicinales.—De Nutritionis modo.—Anatomia Medica ad medicinæ usum maxime accommodata.

After this important survey of the illustrious labours, and distinguished character of Harvey, is there a man who hears me, who does not feel proud in the recollection that he received the elements of his knowledge, and, perhaps, the meritorious direction of his talents, from the liberal plan of learning, and the wholesome discipline, administered within the walls of this College!

The next labourer in the field of medicine, to whom the medical world is indebted for some discoveries, many improvements, and several very elaborate works, is Doctor Francis Glisson. This ingenious and learned man enriched the science of medicine, with assiduous researches into the cause and effect of the Morbus Pnerilis, or Rickets. He afforded a clue for investigation, and founded, or improved a plan of treatment for this disease, which has been pursued with eminent advantage. Indeed the present practice varies but little from that adopted and pointed out in the works of Glisson. Cold bathing, practised in modern times with much success, forms the

great acquisition and improvement, indeed almost the only one, to the practice recommended by this able physician. He seems to inculcate that Rachitis was a disease, that appeared only about thirty years antecedent to the publication of his treatise in 1680. Boerhave, and several others of respectable authority, adopted his idea.

With great deference, however, it appears to me, that as all the alleged and accredited causes, which immediately induce, or remotely engender a predisposition to this disease, existed immemorially, so must the disease itself; though, perhaps, it had the fate of not being investigated, understood, or defined. Indeed, Boerhave himself, though he seems to have assented to the assertion of Glisson, of the recent appearance of Rachitis, argues very differently on another subject; where, after enumerating the causes of a particular disease, he adds, "these must have subjected our species to such disorders ever since they have lived as we do." This seems to have been the opinion of Dr. Cullen, who, however, says, that to adjust the particular time of its appearance, "was a point of too little consequence to detain his readers." After granting that names of the highest cele-

brity maintained the modern appearance of Rachitis, and denying the fact, it was surely fair to expect that some reason would be adduced in support of his negation: but independent of the consideration that all the acknowledged causes which induce or predispose to the disease, are as old as human infirmity, we may find some clue to ascertain why many eminent men assented to the statement of Glisson. Syphilis having appeared about that period, and its usual train of afflicting accompaniments being rendered dreadful, in proportion to the ignorance of efficacious remedies, Rachitis was imputed to venereal taint, the wretched bequest of emaciated parents to their unoffending offspring. The imaginary alliance of Syphilis and Rachitis is, however, easily to be confuted, if it be conceded that the *causes* of Rachitis, and of course the disease, indisputably existed immorally, and Syphilis was introduced so late as 1500. The one may be occasioned without, and does appear unconnected with the other. Besides, as Dr. Cullen justly observes, “when a siphilitic acrimony is transmitted from the parent to the offspring, the symptoms do not appear at a particular time of life only, and commonly more early than the period of Rickets; the symptoms also

“are very different from those of the rickets,
 “and unaccompanied with any appearance of
 “the latter: and lastly the symptoms of
 “siphilis are cured by means, which in the
 “case of rickets, have either no effect, or a
 “bad one. It may indeed possibly happen,
 “that siphilis and rickets may appear in the
 “same person; but it is to be considered as
 “an accidental complication.” Thus the very
 foundation, on which it is supposed many built
 their doctrine of rachitis, being of so modern
 a date, is destroyed by the strong weapons of
 argument and fact.

Glisson appears to me, in enumerating
 the causes, or, (as he terms it) the primary
 and radical essence of the disease, to blend
 the causes and effects together. Cullen has
 ably obviated this defect; and the seeds from
 which this afflicting complaint springs, are
 accurately stated by him.

From some very strong facts, which
 have formed part of my own experience, I am
 induced to rank among the causes of rachitis,
 a disturbed and distressed state of mind, of
 the maternal parent, during her pregnancy.
 Repetition of chagrining misfortunes, conjugal
 misconduct, and especially that worrying

and vexatious spirit or temper, with which some men ruffle and torment the mind, and torture the tranquillity of their defenceless partners; These, I have had the most unequivocal reason to observe, have been the painful forerunners of a rickety offspring. No one, I believe, will deny that reiterated mental pain debilitates the body; or, that the sufferings of the mother affect the unborn. The slight but perfect work of nature is disordered, and her powers counteracted, by a fretted temper, and inward repinings. Even after parturition, the natural food of the infant, the very fountain of its life and well-being, is, by petty acts of unkindness and tyranny, converted into an acid beverage, calculated to breed disease; as if Providence, amongst other temptations to a manly tenderness to the softer sex, had offered us a healthful and perfect offspring, as the reward of tender care and affection.

Besides Glisson's excellent treatise on rachitis, we are indebted to him for a more accurate description of the liver, than we before possessed. The capsule of the vena portarum bears his name, in attestation of his discovery of that part, and is usually termed *Capsula Glissonii*. His treatise, "*De Ventri-*

"*culo et Intestinis*," exclusively of methodizing all the knowledge of his time on the subject, contains the first idea, or assertion, of the nature of a simple fibre, or irritable principle residing in the solids; a discovery ascribed to Haller. Perhaps, however, the merit may not be inequitably thus divided,—that Haller fully authenticated by experiments, what Glisson had only asserted and described. He also gave the world a proof of his exceeding industry, and extraordinary mental powers, at the advanced age of seventy-five, by an extensive and learned work, "*De natura substantiæ energetica, &c.*" This benefactor to medicine, and respectable ornament of its profession, owed the foundation of his studies, and, perhaps, the incitement of his emulation, to the tuition of the learned body, who then presided within these walls.

About this period, the abilities of Stahl conferred celebrity on a system, which was founded on the principle *that the rational soul of man governs the whole æconomy of his body*. He endues the soul with Autocracy, and invests it with unlimited intelligence, and active agency, in whatever regards the health or disease of the body. The influence of the mind, through the medium of the nerves, he c

dered as extended to every part of the system. He supposes the soul to be conscious of every disease in its incipient stage, and even acquainted with every morbid predisposition; and that sweats, hemorrhages, diarrhœas, fevers, and other affections of the body, were indications that the soul was exerting its various powers, to prevent, to counteract, or to subdue disease. This doctrine, by encouraging an exorbitant expectation of benefit from the *vis medicatrix naturæ*, led to an inert and inefficient practice. The system is too hypothetical to need an elaborate confutation; indeed, the oblivion into which the doctrine is sunk, answers every purpose. We must not, however, omit to observe, that the doctrine of Stahl, by inducing a close attention to the diagnostics and phænomena of diseases, has furnished in his works, and in those who maintained his opinions, many valuable facts, not to be found elsewhere. He derived his greatest fame from his talents and labours in chymistry.

The doctrine of *Phlogiston* was the joint honour of Stahl and Becher, though the former contributed most to its establishment. It is, however, now effectually overturned, though it justly, at that period, increased his celebrity.

At this time, Doctor Hoffman first suggested the idea of spasm, an incident of material importance, as it led to a curious and useful investigation of the nervous system, before so totally neglected. Cullen particularly expresses his obligation to Hoffman, and considers the medical world highly indebted to him. No doubt we owe him much; as we may, perhaps, justly attribute to his suggestion, the works of Gaubius, on the *Solidum vivum*; and of Boerhave, on the *Impetum faciens*. Several very valuable writings, particularly those of Mr. Barthez, have, since that period, illustrated this interesting subject. It is, however, an inexhaustible topic; and, setting aside the knowledge of some prominent principles, deduced from facts that appear frequent and similar, it is a subject delusive and mysterious. The nervous affections vary almost with every person, age, and constitution; and morbid affections of the nerves are often the creature of habit, or the offspring of a wounded imagination. In the study of the nervous system, as in the science of physiognomy, we frequently find ourselves grievously deceived, where we confidently suppose we are pursuing certain and leading principles.

The healing art, for a long and disgraceful period, so far from being progressive towards perfection, seemed retrograde. Those physicians, since the time of the divine Hippocrates, who were blessed with genius, or adorned with erudition, by a strange perversion of talents, seemed to delight in building systems of theory, and in exerting abundant pains, to render every succeeding system as widely opposite as possible, from that of their predecessors. Experience was relinquished for speculation ; and the plain path of simplicity abandoned, for the vain merit of encountering the dangers of a labyrinth. “The ingenuity of mankind,” said the great Boerhave, “has been generally unwilling to take up with such principles, as are the most obvious to our senses, and useful to our interest.”

In this state, the healing art was found by Doctor Thomas Sydenham, about the year 1650. The indolent, the weak, and the ignorant, delight in the marvellous. What exceeds our industry to search for, or our knowledge to discover, self-love readily whispers must be buried in profound learning, or accessible only to the highest flights of genius. For instance, the belief of *expelling, attract-*

ing, and concocting faculties ; of energies, sympathies, antipathies, idiosyncrasies, and occult causes ; of the body being nothing but salt, sulphur, and mercury ; of man being a microcosm, and uniting in his frame the motion of the stars, the nature of the earth, of water, air, all vegetables and minerals, the constellations, and the four winds ! !

Encumbered and enveloped in such heterogeneous fictions, and disgraced by such doctrines, Doctor Sydenham found the art of medicine. The habitations of mankind had been desolated, and despair had long formed a part of every family where fevers had entered. Upon the fanciful theory of all fever being a violent effort of the system, to expel some morbid matter, *some insidious enemy that lay concealed*, the struggle of nature was to be assisted by powerful sudorifics. This calamitous practice Sydenham had the penetration to condemn, the courage to withstand the violence of prejudice, and at last to extinguish it by the irresistible evidence of facts. But his most memorable success was, in overturning the fatal method of treatment, then universally pursued, in the Small-Pox. In both cases, the most heating remedies, and violent sudorifics, were exhibited, to the de-

plorable devastation of the unhappy subjects of inflammatory diseases. The cooling regimen introduced by him, was attended with the happiest consequences, and has been adopted by almost every succeeding physician to the present time. Indeed, such is the accuracy and scrupulous adherence to facts in his history of cases; so masterly and minute his description of diagnostics, that we are not surprized to find him destroying the chance-medley system of others, and substituting a rational and efficacious treatment of his own. From the well-earned praise, so enthusiastically bestowed on Sydenham by Boerhave, purchased by his fidelity in recording the history of diseases, we might, perhaps, ascribe to that great man's partiality, the motto, "*simplex vigilum veri*," which he inculcated in life, and which was engraved on the tomb that inclosed his honoured relics. This character was eminently maintained by Sydenham, in his writings on the gout. The medical men of the present day will, perhaps, be compelled to acknowledge, that his candid confession of the difficulty of divining the nature of gout, and his faithful and laborious description of its symptoms, progress, and variety; and his diffident statement of the means of its cure, form a lesson for the imi-

tation of all succeeding physicians, who have the love of truth, and the interest of humanity at heart. The present method improves very little, if any, the plan of our author, unless the exhibition of wine (agreeable to the Brunonian doctrine) be deemed a material benefit. As Sydenham and Brown agree in imputing the disease to debility, I cannot but be inclined to deem a moderate use of wine an improvement.

Sydenham appears to have merited what Doctor Beddoes applies to another great man, "He overcame inveterate prejudices, and put "medical men in the right path." This certainly was atchieving an important service for mankind. The vast benefit, however, which he conferred by rescuing the afflicted with the small-pox from the carnage of the old system, is now happily superceded by the discovery of vaccine inoculation. Whoever is desirous of duly appreciating the works of Sydenham, must peruse his writings, or see them improved in Boerhave, and perpetuated by his grateful and honourable eulogium. It should be especially recorded, that from the injudicious use of bark, (introduced into practice or notice by Sir Hans Sloane) combined with a strong prejudice against its exhibition, it

began to fall into disrepute, till Sydenham restored it to just estimation. Where the bark disagreed, he constantly administered it with opium ; and was the first man who set a just price on the excellent qualities of opium, and gave it most judiciously, *nec temerè nec timidè*.

We now arrive at the period, when the medical world was illuminated by the transcendant abilities and renowned labours, and the moral and christian world was instructed in the duty and happiness of living well, and in the "luxury of doing good," by the virtuous and revered life of the truly great and good Doctor Boerhave. This eminent character considered the talents and powers with which he was endowed, as given for purposes superior to sublunary celebrity ; and, whilst he appeared, by his vast professional knowledge, to prolong life, the influence of his piety and virtues recommended the only conduct which could render existence an object of desire, and prevent death from being a scene of horror, dread, and despondency. Born with a genius which animated him with ardent zeal, he aspired to collect all the knowledge of ancient and modern times ; assisted by an admirable education, he accomplished his purposes ; and blessed with a sound judge-

ment, he generally discriminated between that practical information which was worthy of being retained, and that hypothetical science which it was expedient to reject. Next to Hippocrates, he declares himself mostly indebted, for valuable medical resources, to Sydenham, whom he calls the *true English Hippocrates*, the *Ornament of England*, and the *Apollo of the medical art*. His system of practice may be deduced from his own works —“There are two methods” says he “which “may be relied upon as certain, for the attainment of the art of healing, which may be “esteemed its solid foundations: the *first* is “an accurate *observation* of all the appearances offered to our senses in the human “body, whether in *health, disease, dying, or “dead*; whether they proceed from internal “causes residing in the animal, or from the “action of external bodies, accidents, or the “art itself. The *second* is a strict consideration and discovery of the several latent “causes, concealed from our *naked* senses, “in human bodies, by a just *reasoning*; “which is really necessary to prevent future “ill accidents, and secure the good events.” Possessed of all the learning, and practical observations of medical men, from Hippocrates to Sydenham, he improved their col-

lected wisdom, by a careful and patient comparison of their doctrine and practice, with the result of his own vast experience. He availed himself of his great knowledge of Botany, Chymistry, and Anatomy, but shewed a caution in adopting the new discoveries of either; a circumstance which displayed his eminent regard towards every thing which involved the health of mankind. He made the vanity of discovery submit to the enquiries and experiments of timid and humane prudence. Zealous from philanthropy, few diseases escaped his research: but he was also patient and minute, from the checks he had experienced from the subtlety of disease; an acquaintance with the causes, symptoms, and effects, were the slow but certain discoveries, the laborious but rich rewards, of his noble employment. To attempt the enumeration of his discoveries and improvements, would entail on us the necessity of transcribing one-third of his works. There is scarce a malady incident to humanity, which he has not illustrated by valuable facts, and which has not yielded to his ingenuity and experience. His works form a mine, where the physician cannot search long without finding treasure; and if he overlooks, from pride or indifference, the smallest part, he will leave

behind what will richly repay the more patient search of future talents and application. We are far from presuming the system of Boerhave to be perfect; his mechanical hypothesis, applied to the human body, fails in various and important instances; his partial adherence to humoral pathology, often entangles him.

Doctor Cullen, with sedulous eagerness, endeavours to point out various imperfections in Boerhave: we doubt, however, with some medical men, not unfriendly to Dr. Cullen's name, whether he did not display more zeal in pulling down, what he deemed faults and disproportions in the building, than he manifested power, or supplied materials to improve the structure. He who reads Cullen's works, will find little valuable, which he might not trace to Boerhave, excepting some accessions, which a progressive art or science almost every day presents to all. To conclude this sketch of the character of Boerhave, and the debt the medical world owe him, he was a physician whose genius casts a lustre on the period in which he lived: as a man, he was an honour to his species; as a learned man, he claims the admiration of all who are concerned for the interest of letters; as a christian, he was a model for the good,—a salutary

reproach on the illustrious wicked.—“Virtutem videant, intabescantque relictâ.”

Cotemporary with Boerhave lived Doctor Richard Mead, a physician of distinguished celebrity in his day, and of an extent of practice far exceeding all his competitors. By those who have diligently read and compared his works with those of Sydenham and Boerhave, we shall not be accused of harsh judgment, when we venture to affirm, that Doctor Mead derived as great a share of his celebrity and practice from exterior recommendations and general accomplishments, as from any transcendent medical superiority. To considerable learning, he joined those acquirements, to which a residence on the continent for some years presents to a scrutinizing judgment, a lively imagination, and elegant taste. At 16 years of age he was sent to Utrecht, where he studied three years under the celebrated Grævius; the three following years he passed in Leyden, where he attended the lectures of the famous Pitcarn, on the theory and practice of medicine, and Hermon's botanical courses. He then visited Italy, and remained some time in Romé and at Naples.

Thus qualified, he commenced his me-

dical career, and soon experienced all the success which his professional talents could claim, or the influence of fashionable manners could conciliate. At a very early period, he far outstripped all competition in fame and practice, and acquired an influence which rendered his acquaintance coveted by the literati, and by persons of condition at home and abroad. He loved, and munificently supported learning, and his patronage of it increased with his affluence:—and, whilst it procured him the approbation of those, whose opinions circulated widely through society in their writings, it threw a lustre over his character, which the lovers of Belles Lettres deemed it an inviolable duty to preserve. His table is said to have united the splendid hospitality of a prince, with the fascination of polished manners, and the conversation of philosophers. When, however, we consult the works of Mead, the glow which animated the mind by an acquaintance with his general character, gradually subsides; and we are compelled to own that he founded not his fame on luminous discoveries, or laborious improvements. His works are far inferior to Boerhave's in matter, and he rivals him still less in method. In his description of diseases, their causes, and diagnostics, he is singularly deficient, and yields,

in this respect, to a variety of medical authors. His great professional celebrity renders it difficult, and his generous encouragement to the interest of learning makes it painful, to deny him that plenitude of medical fame, which he maintained when living; but in estimating to whom we are indebted for any progress in medicine, we must often appeal from living popularity, to posthumous evidence. His theory of the powerful influence of the moon on human maladies, is (with a very few exceptions) exploded by the Physician and the Philosopher. We are, however, materially indebted to him for an important improvement in the operation of Tapping in Ascites, which before was considered always perilous, and generally fatal. The sudden transition from great distension of the abdomen by collected water, to a cold and relaxed vacuum by its removal, and other effects incident to tapping, had produced death with alarming frequency. By the simple process of a gradual pressure of the abdomen, with both hands, from the upper part downwards, as the water was drawn off, and by preserving it so compressed with a flannel bandage, every unhappy consequence was avoided. With such safety did Dr. Mead perform this improved operation, that the Lady of Sir Gregory Page was tapped

sixty-six times in sixty-seven months. In this space of time, the vast quantity of two hundred and forty gallons, or one thousand, nine hundred, and twenty pints of water were drawn from one human body! When inoculation for the small-pox was first recommended in this country by Lady Mary Montague, Doctor Mead, (then physician to the King) by the Sovereign's order, first performed inoculation on a malefactor. His works are—*De variolis et morbillis dissertatio*.—*A discourse on pestilential contagion, and method of prevention*.—*Treatise on the scurvy*.—*On poisons*.

They who can justly estimate improvements in Anatomy, will long cherish the remembrance of the great Chesselden; and, professionally speaking, the auspicious beginning of the seventeenth century. Deeply read in the knowledge of his predecessors, he zealously, and with patient assiduity, brought all their opinions to the dissecting-room, and there ascertained their merit or errors, by close observation, and the test of experiment. He seems indeed to have paid a due regard to the admonition of the great Lord Bacon. "Non fingendum aut excogitandum sed inveniendum quid natura faciat aut ferat."

A profound and philosophic anatomist could not view subjects of affliction, despairing of any remedy, without feelings of deep commiseration. Chesselden resolved to hazard his reputation to atchieve a grand act of philanthropy. The objects of his pursuit were worthy his genius, his skill, and benevolence; —the relief of those who suffered from privation or injury of those inestimable blessings, sight and hearing; and those whose life was a scene of torment and agony from the Stone. He discovered, that the disease of the membrana tympani frequently injured, or totally obstructed, hearing. He then proceeded to enquire if the tympanum be the seat, or only an auxiliary of sound. For this purpose he perforated both the tympana of a dog, and to his great delight found that the operation in no degree impaired his hearing. Prejudice, so often the enemy of improvement, prevented him from pursuing this discovery on the human subject. Government, however, at last, offered mercy to a condemned criminal, on condition of undergoing this operation. The malefactor being ill of a very severe fever, the experiment was unfortunately protracted; and the clamour of the multitude at length induced the Executive Power to forbid the operation. Thus a most important discovery

of the great Chesselden was a cause of chagrin, and disappointment to his benevolent mind. Mankind, however, have received the benefit intended them, by the revival and success of the operation by the ingenious Mr. Astley Cooper.

Chesselden's description of the ear is such as might be expected from this great Master of anatomy. Nor were his researches into the anatomy and construction of the eye less assiduous, or perhaps of less utility. His description of every the minutest constituent part of the eye, and his practical observations, are highly valuable. He couched, with uncommon success, the eyes of various persons born blind : but he derived the most accurate, curious, and interesting information, from a young gentleman about fourteen years of age ; on whom he performed this operation. For the detail of this case, we refer to Chesselden "on the eye", to which it is annexed. It strongly exhibits the wise intention of the Creator, that each sense, though it had its separate function, should receive assistance from others. Thus, when the sight of this young man was restored, he thought each object which he saw was close to him ; and

had no idea of proportion, distance, shape, or beauty.

The dreadful mortality which, in Cheselden's time, attended the operation for the stone, even under the ablest men, was a sad stigma on surgery. This mischief attracted his attention, and its comparative removal increased his celebrity. After operating in the two methods then known and practised, termed *the old and the high operation*, with greater success than any cotemporary, he yet resolved to venture on a new method; not from a transient conceit, but from some light which dawned on his mind, in comparing the disproportion of the deaths of *Women and Men*, who had undergone the operation. He, therefore, *first practised the lateral operation*, and with a success which displayed his skill, and rewarded his philanthropy. In the first hundred patients, only six died; and though, in his vast subsequent practice, the proportion was greater, it is most satisfactorily and candidly accounted for. His astonishing success induced the aged and exhausted to wave all their usual dread, and seek his assistance. No language of ours can convey an adequate idea of the unaffected modesty, with which this great man advanced in fame, and excelled in

benevolence. We, therefore, transcribe his own words, in which he concludes the account of his eminent success in his newly-discovered operation. "If I have any reputation
 "in this way, I have earn'd it dearly, for no
 "one ever endured more anxiety and sickness
 "before an operation, yet from the time I
 "began to operate, all uneasiness ceased;
 "and if I had better success than some others,
 "*I do not impute it to more knowledge*, but to
 "the happiness of a mind that was never
 "ruffled or disconcerted, and to a hand that
 "never trembled during any operation."

The mind of Chesselden must be reviewed in his works, where its image will be long and justly admired.

About this period we were indebted to the Lady Mary Montague, for the general introduction of Inoculation in Small-Pox. The patriotic example of that distinguished female, by the inoculation of her own child, gave a fashion to this very important process, which counteracted the violence of prejudice, that might otherwise have long retarded its beneficial influence: for though Doctor Mead relates the inoculation of several condemned criminals, by order of his Sovereign, yet it is

very probable few would have ventured to follow such examples, unless some person of eminent condition in life had the patriotism to lead the way. As a proof of this, it may be remembered, that even in the days of Chesselden, popular convulsion was apprehended when a criminal was to undergo the simple operation of perforating the Tympanum of the ear, though the reward was the highest that could be offered,—life itself, and the motive, public benefit. We must not omit, however, to state, that in some remote parts of Wales and Scotland, some clumsy and imperfect kinds of inoculation existed immemorially, as has been proved, beyond all contradiction, by Doctors Munro and Williams, of Haverfordwest, (1725) on small-pox.

Sydenham and Boerhave in Physiology, and Chesselden in Anatomy, have rendered their names illustrious as the benefactors of mankind, by exciting a taste for the true philosophy of medicine, and exposing to just contempt and odium, the old mode of *systematizing*, where fertility of fancy, and novelty of hypothesis, were permitted to sport with ephemeral fame, to the great detriment of health, and the disgrace of the medical art. With the works of these great men before

him, endowed with a penetrating mind, and great erudition, De Haller commenced his honourable career in medicine.

Observing that almost every discovery, which had immortalized or elevated its author to fame, was due to the labours of ingenious experiment, and not to the splendid theories of brilliant imagination, he began his long and eminent life, in prosecuting his physiological studies and improvements with the spirit of a real philosopher. From a man so gifted, much might be expected; and Haller more than verified the most sanguine hopes of his cotemporaries, and excited, very early, the admiration of every friend to medical science. George the 2nd having been made acquainted with his rare talents, and being desirous of promoting the prosperity of the University of Gottingen, invited De Haller thither, and rendered the situation worthy his ambition, by instituting for him a Professorship of Anatomy, Botany, and Surgery. The various duties of this eminent station, he executed in such a manner, as to challenge the high praise of having conferred honour on a situation, which would have given dignity to any other Professor. To teach with an advantage and effect, suitable to his high character, he com-

bined and compared his extensive knowledge of preceding writers, with an intimate acquaintance in all the discoveries which every day produced; but he assigned no merit to either, till examined by a close observance of that branch of the human system of which it treated: and in deciding on controversies, his cool but penetrating judgement often discerned, that heat and animosity had led both parties wide of the truth, by a tenacity to defend untenable points.

It will be readily perceived by his excellent works, that there is scarce a part of anatomy or physiology which Haller has not materially improved, or in which he has not conveyed the improvements of others in more perspicuous and intelligible terms. Were some of our modern rapid and voluminous writers candidly to acknowledge their debts to Sydenham, Boerhave, Chesselden, and Haller, they would find the debt they claimed from the public would barely discharge what they owed to the memory of these illustrious men. If vanity must be decked with uncommon and precious plumage, candour requires we should be directed to the *rara avis* from which it had been plucked. We esteem a connoisseur who rescues from the ruins of

Herculaneum, or the garret of ignorance, a fine statue, or a rare picture ; but contempt and indignation would overwhelm the man who exhibited either as his own workmanship, yet could not paint a Sign-Post, or carve a Barber's Block. It is unnecessary to enter into a detail of the errors which Haller has destroyed, or of the facts which he has illustrated in physiology ; but we owe it to his fame to make an honourable mention of his perfecting, if not making, the very useful and important discovery of the irritability of the simple fibre. Like other discoveries, it met at first with a virulent opposition ; and, when demonstrated beyond the very cavils of scepticism, it encountered an attempt to fix the merit on others. For the ingenious experiments and able reasoning which established this discovery, we must refer to his works, or to a comprehensive extract in the first volume of the *Philosophy of Medicine*, a work of great utility, research, and ingenuity. It is pleasing to reflect, that the labours and talents of this great man, procured him an invitation to a Professorship at Oxford, and to the chair of the younger Albinus in Holland ; and from the King of Prussia, from the Empress of Russia, and other Sovereigns, an offer of distinguished stations and honours in their

several dominions. The King of Sweden, and the Emperor of Germany, each paid him the homage due to illustrious talents, and unsullied character; and thereby fulfilled one of the most honourable and important duties incumbent on a Sovereign.

We now reach a period, when anatomical and physiological labours, rendered more celebrated by the difficulties and impediments under which they were prosecuted, afforded the greatest facilities to the spirit for knowledge and inquiry, which so eminently mark the present *Æra*. Amongst those who, by an union of talent and application, animated with a laudable desire of conferring distinction on their families, by the true dignity of well-earned fame, we enrol the name of Doctor William Hunter. In his efforts he had the good fortune to be seconded by the rare genius of his brother John Hunter; especially in his ingenious and penetrating researches into the Gravid Uterus. His great and splendid work was the *Anatomy of the Gravid Uterus*. That this ingenious and highly useful publication should appear before the world as perfect as his great opportunities, experience, talents, and labour could render it, he delayed its appearance twenty-four years. He discovered

that the internal membrane of the Uterus (which he named Decidua) constitutes the exterior part of the Secundines, or after-birth, and separates from the uterus every time that a woman bears a child, or suffers a miscarriage. This discovery includes another—that the Placenta is partly made up of an excrescence or efflorescence of the uterus itself. The benefit resulting from these discoveries is of great importance, as they tend to remove the difficulty in the physiological enquiry concerning the connection between the mother and child; and materially assist us in the explication of the phænomena of births and abortions. Doctor Hunter was the first person who discovered, and accurately described, that species of Aneurism termed Varicose; a discovery which possesses the eminent advantage of preserving the patient from a very painful operation, and the danger of destroying the principal artery of the limb. His anatomical pursuits were much facilitated by improvements on the invention of Injections, and the formation of what is termed a Preparation. Swammerdam and Ruysch have the honour of the invention; and great improvements were made in England by Cooper, St. Andre, and others. The modern, elegant, and useful art of separating the fleshy parts

from the injected and moulded wax, confers honour on the ingenuity of Doctor Nichols.

Availing himself of all the anatomical knowledge of the day; a participator or improver of most of the infant discoveries; and laborious in arranging whatever was curious or useful, the Lectures of Doctor Hunter became a fund of information, conveyed in a pleasing and eloquent style. A perfect master of his subject, he had the talent of rendering the abstruse parts of anatomy and physiology clear and intelligible. At particular times he claimed a higher praise; and he who reads his beautiful anatomical representation of the human frame, in his introductory lecture to anatomy, with his moral and religious reflections thereon, will learn from his feelings, that Doctor Hunter could be simple, edifying, eloquent, and elevated, if not sublime. Honour'd by the esteem of his Sovereign, and by distinctions from various learned societies, both at home and abroad, and rewarded with affluence, and the admiration of his profession, and society at large, he died at the age of seventy-two. He appears to have possessed rather an ingenious and elegant mind, than rare and inventive powers; better calculated to establish and improve the imperfect and

immature discoveries of others, than to pierce the veil of nature, and introduce the daring glance of invention. His manners are said to have had a great share in conciliating an extensive and lucrative practice, and to have favoured the growth of his fame, by shielding it from the dangerous attacks of envy.

Cotemporary with the above eminent character lived his brother, the celebrated John Hunter, in whom nature presents us with an illustrious proof of her powers. Without the advantages of education or fortune, he surmounted every difficulty, and rendered the most memorable service to the medical world, and consequently to the interest of mankind. Human anatomy owes him a great debt, and comparative anatomy an incalculable one. His treatises "on the Animal *Æ*economy", "On the Venereal Disease," "On the Teeth", "On the Blood and Inflammation", display a richness and variety of knowledge, to be acquired only by an original and laborious system of experiment and thinking. Whatever was deemed capable of discovery or improvement in the human body, formed the object of his pursuit; nor was he content with the transient efforts of zeal, to be set off with ingenious speculations, and

sparkling conceits, but he resolutely and patiently executed the dictates of a bold and original genius, by an incredible train of laborious experiments.

The phænomena and natural appearances of human and comparative anatomy which he met with, and which he deemed worthy and yet difficult to preserve in any other way, he procured to be accurately and beautifully drawn by an ingenious young artist, whom he engaged to live with him ten years for that purpose. The merit and value of Dr. Hunter's museum, was much increased by his productions, and his able assistance. His own collection of human and comparative anatomical Preparations, was, perhaps, the grandest in the world, and entirely the result of his own genius and industry in the course of one short life. In this collection we see a most successful effort to present to our view "every gradation of nature, from the most simple state in which life is known to exist, up to the most perfect and complex of the animal creation, —Man himself:" and this he accomplished in an arrangement so perfect, that each subject, which might be the object of curiosity, might be reviewed in every shape and condition pervious to our knowledge. An honour-

able emulation arose, at his lamented death, amongst the crowned heads of Europe, who should be the purchaser of this inexhaustible source of utility and admiration; but the Legislature would not disgrace their country, by permitting a foreign power to purchase this "*monumentum ære perennius*" of human ability, and national genius. The immortal Harvey, and others, had often suggested and declared the vitality of the blood; but its demonstration, by decisive experiments and convincing reasoning, was left to exalt the fame of John Hunter. He materially contributed to the exposition of the human gravid uterus, which conferred such deserved applause on his brother Doctor Hunter.

He detected the cause of failure, common to all the operations in use, for the radical cure of Hydrocele; and substituted a mode of operation to remedy the unhappy effects of the former plan. He invented, also, a mode of operation for the Popliteal Aneurism; and the happy result of many subsequent cases, treated agreeably to this method of taking up the femoral artery on the anterior part of the thigh, without touching the tumour in the ham, evinced the great value of the discovery. His enquiries into the original

situation of the Testes, and the information acquired by unremitted assiduity on that subject, presented us with a long-desired clue to unfold and explain many mysterious phenomena in various cases of Hernia.

To describe the extent and value of his discoveries and improvements, or to enumerate his ingenious communications to the Royal and other Societies, would form a body of knowledge, which adorns and enriches the library of most medical men; and enlarges and directs the studies of the more enlightened and liberal.

Some of his works have excited considerable controversy. One of his antagonists, of very respectable talents, attacks him with a tenacity that betrays prejudice, and a virulence that bespeaks malice. Offended with the merit which the world had awarded him, he abuses that which he cannot wound, and mutilates what he is unable to destroy. The sacred claims of his lamented and deceased friend, have been generously felt, and ably vindicated, by Mr. Adams, in his ingenious treatise on Morbid Poisons; whose warmth, if it rendered no assistance to his head, has certainly reflected honour on his heart.

The genius of John Hunter saw quickly, deeply, and distinctly. His application was ardent and indefatigable. The respect paid to his name and memory is calculated to inspire an emulation of his invaluable labours; and his writings and museum may be said to form a firm and solid foundation, on which, present and future Anatomists may raise a structure for the asylum of the afflicted.

The popularity of the name of Doctor William Cullen, and the respectable utility of his works, induce us to mention him as an ornament, rather than a luminary of the medical world. He appears to have been eminently qualified to teach what was known, by an ingratiating manner, a pleasing elocution, and a lucidus ordo, for which his lectures were peculiarly distinguished. But though indebted to education and study for powers of great utility, nature had withheld from him that grand faculty, that exquisite impulse of an ardent genius, which pursues and siezes those darkened objects, which momentary flashes of the mind imperfectly discover. His method of exciting emulation among his numerous Students, (the benefit of which may hereafter confer great service on the medical art) and his noble disinterestedness, would

form admirable traits in the best character. He was fitted by nature to live an esteemed physician, a beloved teacher, and a good man; but the warm beams of panegyric, which injudicious friends have profusely cast upon his laurels, have withered, rather than cherished them. The Doctor himself was wisely contented with reflecting, that "*in præstantibus, rebus, magna sunt ea, quæ sunt optimis proxima.*"

Standing on its own base, disdaining the aid and support of any former system or theory, and defying the attacks of rivalry, envy, or malice, the medical world now gazed on the newly-erected system of the celebrated John Brown. Its foundation unites simplicity with solidity; its superstructure, genius with rationality. It has its imperfections; but its beauties, its utility, and promise, command for its author a distinguished niche in the temple of fame. Whenever truth has been discovered, her prominent characteristic has been simplicity: the fantastic and meretricious forms, to which, at various times, vitiated tastes have rendered homage, are by degrees forsaken, and at length rejected, for the increasing charms of simple truth. Gorgeous learning, glittering genius, and indiscriminat-

ing industry, imagining that what had so long remained undiscovered, must lie so deep as to be inaccessible, except to the united powers allotted to human nature, sought the art of healing in elaborate theories, overstrained analogies, and splendid conceits. Thus the medical science had all the beauties, and all the fiction of a romance;—all the promises and disappointments of a dream. Brown, as he himself states, after he had wandered for fifteen years, like a traveller in an unknown country, trying every path, and finding each terminate in a wild of ignorance, almost yielded to despair; and, with many eminent men, and the very vulgar, began to deplore the healing art, as altogether uncertain and incomprehensible.

A severe attack of the Gout, which baffled all the treatment pursued on the principle of its generally accredited origin *plethora and excessive vigour*, first staggered, and at last overturned his faith in the old system. An opposite plan not only quickly cured the disease, but repressed, and almost extinguished it during the remainder of his life. This he termed his first ray of truth. Elated with his success, and suspecting, from some similar symptoms, that Dyspepsia bore an

affinity to gout, he made the experiment, and found that it depended equally upon debility, and yielded to stimulant remedies. A similar trial in the case of asthma was followed by similar success. Extending his investigations, “he discerned that affections, in which, upon the supposition of their being inflammatory, no limits had been set to the use of the lancet, instead of arising from over-proportion of blood, and excessive vigour, or any other such cause, depended upon an under-proportion of that fluid, and other causes of debility, and were to be cured, not by bleeding or any other evacuations, but by filling the vessels, and restoring the strength of the whole system.”—(Preface to Brown’s original work.)

To explain the whole of the Brunonian doctrines, would far exceed the limits of our present purpose, especially as such an attempt would naturally involve us in controversy with an host of enemies, who have honoured Brown with the same hostility, which for a long time assailed the immortal Harvey, and his doctrine of the circulation of the blood. He admits but two forms of disease,—“*Direct*” and “*Indirect Debility*”; the one arising from a *deficiency*, the other from an *excess of stimuli*.

The former he termed "*Asthenic*", the latter, "*Sthenic Disease*."

Having thus stated the causes and effects of disease, he pursued a plan of cure—simple, but powerful; highly rational, but truly ingenious. The simplicity of his doctrines confounded and displeased those who had been at vast pains to comprehend the profound mysteries, and inexhaustible theories, which were supposed to contain the art of healing.

Brown's doctrines are now become popular, not only in these kingdoms, but in most parts of the continent: and "whatever errors he may have committed in the application of his principles, I will venture to predict," says Doctor Beddoes, "his credit will remain unshaken." "Before him," says the same enlightened author, "investigations relative to medicine, had been carried on just as rationally, as if to discover the qualities of the horse, the naturalist were to direct his attention to the movements of a wind-mill. There existed no system which was not either entirely, or in a great measure, founded upon the observed or supposed properties of substances, destitute of life. Thus Boerhave

"taught, that diseases depend upon changes
 "of the blood, similar to those which certain
 "oily, watery, or mucilaginous liquors un-
 "dergo. Cullen referred the phænomena of
 "life to an imaginary fluid, endowed with the
 "same properties as the electric fluid; though
 "of this the very existence is still problema-
 "tical. His predecessors having in this man-
 "ner left MAN entirely out of their systems,
 "or assigned him an unimportant place,
 "Brown atchieved the important service of
 "restoring him to his proper station in the
 "centre."—(Preface to Brown's Elements of
 Medicine, by Doctor Beddoes.)

The persecution he laboured under, embittered by viewing his old friend and master at its head; the violence of his temper, exasperated by undeserved indigence; rash and imprudent acts, the too frequent result of complicated misfortunes, prevented Brown from sitting down with that calm, clear, and disinterested mind, which might have given a more perfect form to his valuable work. Indeed, the allegation of minor exceptions, an abuse of definition, and petulant animadversion, on supposed instances of misapplication of some of his principles, and not a refutation of his fundamental doctrine, em-

ployed the enemies of Brown. Dazzled and pained on the first view of resplendent light, without looking around to observe the objects it discovered, illumined, and cherished, they loudly reproached the luminary which disclosed their own weakness, though it clearly laid open paths which led to the dearest interests of humanity.

Soon after I had first consulted my inclinations, and determined on the medical profession, the Brunonian controversy led me to read the works of Doctor John Brown. When I was physician's pupil at one of the large hospitals in London, I carefully observed the practice of Cullen and Brown, and their respective merits, in the practice of two physicians; one friendly to the Brunonian, the other a rigid follower of the Cullenian doctrine. Two years close attention to the evidence of facts, strongly prepossessed me in favour of the former. I was, however, young, and mistrusted, in some degree, my own zeal. Being appointed Surgeon to a Regiment, which, for seven years, consisted of from 600, to 1000 men, I had frequently, during that space, fifty—generally about thirty sick men under my care. I classed the diseased, and for some time treated a moiety after the plan

of Cullen, and a moiety after the system of Brown. I can solemnly aver, no unprejudiced man could entertain a doubt, to which plan the preference should be given. Humanity, independent of zeal for reputation, determined me to adopt in general, without however surrendering my discretion, the Brunonian Doctrines.

For eight years, in camp, in barracks, and in quarters, I compared lists with the medical men of other corps, who pursued a different plan; and I had cause to rejoice, from motives both of humanity and self-love. In fevers, and in the greater part of chronic diseases, I have found the Brunonian system productive of benefit, far exceeding what I could ever derive from any other: and, on the whole, I am led to conclude, that a fair trial of Brown's doctrines, corrected and improved by discretion, experience, and ability, will terminate highly to the interests of mankind, and the honour of the healing art.

Doctor Beddoes (I cannot recollect where) remarks, that had Brown been more conversant with anatomical discoveries, particularly the properties of the lymphatic system, it would have assisted him to explain more fully

and accurately, many diseases, which, though they pass under the same denomination, were justly classed by Brown as of a nature directly opposite. This remark may be just; and, indeed, we find Brown, at one period, a studious anatomical pupil; and that at a late part of his life. I fear, however, with the drawbacks which his distress levied on his time, and the interruptions with which his unruly temper disturbed his closet, that what he accomplished was as much as we could expect. Admiration will always dwell on versatility of talent. Its rarity delights; its utility is not analyzed. Various branches of medical science demand, for their respective study, and perfect attainment, as much leisure and application as fall to the lot or inclination of most human beings. It is related of the Egyptian Physicians, that each pursued the study of one particular part of the human system; deeming the diseases more immediately incident thereto, a sufficient scope for one man's talents.

The world will for ever be indebted to that dissention between Brown and Cullen, which, it is more than probable, induced the former to look inwards for those resources which were before controuled or misdirected:

and whilst various enemies level their attacks at the colossal statue of Brown's fame, and indulge an ignoble joy at the discovery of imperfection in some small part, let them not strangely overlook the grandeur and symmetry of the whole ; which are objects of admiration to the sons of genius, and of gratitude to the lovers of humanity.

From the memorable alliance between Medicine and Chymistry, first perhaps negotiated by the great Lord Bacon ; facilitated by the grand and benevolent views of Newton, Becher, Stahl, and Boerhave ; and now fully concluded by the illustrious exertions of Priestly, Kirwan, Black ; of Beddoes, Darwin, and others, the world may expect the most important consequences. Nor can we pen a reflection, connected with Chymistry, without feeling our mind penetrated with unaffected veneration for the name of Lavoisier. After he had advanced the science of Chymistry, by various brilliant and useful discoveries, he erected a durable monument of his fame, on the ruins of the old doctrine of *Phlogiston*.

The Phlogistic doctrine asserts, that *fire* is a component part of all inflammable bodies,

of metals, and most minerals; and in that condensed, compacted, fixed state, it was called phlogiston, to distinguish it from its condition when in a free state. It was the opinion of the Phlogistians, that fire is actually a material body; and that it has an identity belonging to it *from whatever substance* it be extracted. It was this principle (Phlogiston) which, escaping from a metal during calcination, converted it into a calx, or earthly substance; and it was the union of this principle that rendered the air mephitic. But when these altered bodies came to be accurately weighed, metals which had been the subject of combustion, were found to have acquired, instead of losing weight by the escape or dispersion of this *material* body, or phlogiston. Unable to answer this strong fact, the Phlogistians expressed their inability to "explain every thing." The great Lavoisier, however, discovered, that "*mercurius precipitatus per se*, gave out *Vital Air*, which "calcined other metals, giving them weight, "and that when any residue of this air remained, it was not *mephitic*, and when combined with mephitic air, in the proportion "of one to four, it made common atmospheric air; it was then that the *antiphlogistians* "truly triumphed, and the *vital air*, which

“forms a fourth part of our atmosphere, became the universal *Ædipus* that unlocks all the mysteries of Chemistry; the *causa sine qua non* of the antiphlogistic school”.—(Philosophy of Medicine, vol. 1.)

Doctors Black, Kirwan, and Priestley, illustrious advocates of the phlogistic doctrine, after an exertion, for a succession of years, of all their powers to defend the system, gave it up; and, with a candour that adds lustre to genius, declared to Lavoisier their conversion to the antiphlogistic system. The name of Lavoisier, for ever pronounced with the antiphlogistic system, will descend to posterity; and this new æra in chymistry will point out to the lovers of science, the period in which their ornament and benefactor lived. It is painful to notice his death; yet it were more painful to be denied the expression of unaffected sorrow at his lamented fate; or to limit the heart in pouring out its ineffable detestation of a murder—the perpetration of which was accompanied by circumstances so flagitious, that even the innocence and transcendent merit of the murdered, could not blacken the deed. If ever a Tyrant, or Tyranny, be mentioned without appropriate abhorrence, let Slaves and Sycophants be

ashamed and converted by the remembrance of the fate of Lavoisier, under the usurpation of Robespierre.

Thus far we have proceeded in our humble endeavours to mark the Progress of Medicine; nor is the subject exhausted, but abundantly increased in interest, and is fertile with improvement, truly honourable to the medical men of the present day. Yet, whilst our inclinations dispose us to indulge the pride of displaying the genius, learning, and spirit of emulation, which characterize the present professors of the medical art, we are restrained by delicacy, and forbidden by an unaffected consciousness of the difficulty, in allotting the merit, and awarding the praise, so often due, and so frequently divided.

Commendation of living authors, is always liable to objection, and often subject to unforeseen refutation. We must be content to hear our motives suspected, and our judgement questioned. Rivals will impute to us offensive neglect of merit, or an injurious transfer of prior claims. Thus, though the names of Fordyce, Clarke, Cruikshank, Crichton, Wilson, Baillie, Blane, Nicholson, Saunders, Thornton, Thomson, Kite, Denman,

Jackson, Percival, Willan, Woodville, Jesse Foote, Rollo, B. J. and C. Bell, will long adorn the library of the medical student, and be frequently quoted for illustration and encomium by the natural philosopher; yet death must dissolve various ties which unite or attract us by affection, connection, or partiality, before we can bestow on them that praise which is likely to meet the approval of our successors. There are names, however, which fear no cotemporary rivalship; and will perhaps suffer little from past or future comparison. What brilliance of genius, originality of pursuit, and profound learning, amid the interruptions of extensive private practice, may be expected to add to our knowledge, the late Doctor Darwin has exemplified. Of a kindred genius, equal learning, and indefatigable philanthropy, Doctor Beddoes is every day presenting the world with some laborious research, or some valuable discovery, to subtract from the sum of human affliction. His introduction of the *Nitric Acid*, as a cure for siphilis, has excited as much attention, and produced as much discussion, as might be anticipated from the influence of Doctor Beddoes's name, and the importance of the subject. Various and contradictory is the testimony for and against the

remedial effects of the acid. In warm climates (the Indies especially) it appears to have been exhibited with far more success than in England. However, a most valuable quality of the acid in siphilis, is established beyond all controversy—it preserves or restores the appetite, cheers the languor of the stomach, and resists excessive debility of the constitution, always troublesome, often deplorable, and sometimes fatal, in a severe and reiterated course of mercury. We are inclined to believe the opinion of some able writers on this subject, that future experiments, and a fair trial, may disclose other valuable qualities of this medicine, and serve to answer the hopes of its advocates.

The *Pneumatic* practice is certainly, in theory, the most simple, beautiful, and sublime, that the mind can contemplate: its first promise was cheering to humanity; its decline and disappointment afflicted philanthropy, and mortified genius. Let us, however, be disposed to hope, that *much* may hereafter be accomplished, from the *something* which has already been effected. A grand object has been pointed out; if, in our steps towards it, our sight has been intercepted, and our path mistaken, let the magnitude of its attainment

encourage perseverance. The circulation of the blood was suggested, declared, and often indistinctly seen, before it was established. To Doctor Beddoes's exertions, in which genius appears directed and animated by philanthropy, and industry to be increased by difficulty, we are in a great measure indebted for ascertaining the medicinal character of *Digitalis*; which, to use his own words, "with regard to the inhabitants of this island, is becoming nearly the most important article of the materia medica." Indeed, to his persevering researches, we may ascribe the best works that ever issued from the press, on Pulmonary Consumption and Scrophula: and these dreadful harbingers of a premature death, or lingering illness, seem now to abate considerably of their fatal certainty. In brief, we consider the life of Doctor Beddoes useful to mankind; and most heartily we exclaim—*sero in cælum redeat.*

In reviewing the improvements of the present day, we should betray a gross disregard of one of the most useful, if we omitted to notice Mr. Baynton's method of curing old ulcers of the leg. If we measure the benefit of a discovery, not by the learning, labour, and ingenuity required to produce it, but by

the suffering thousands to whom it offers relief, Mr. Baynton has a strong claim on the gratitude of Society; and especially that part of it, for whose welfare it behoves their superiors to be humanely solicitous. The old methods of treating ulcered sore legs, are tedious, vexatious, and uncertain to the medical practitioner; to the sufferer—tiresome and tormenting: and, if in humble life, his lingering pains are sharpened by the loss of labour, and poverty rendered more poor.

Mr. Baynton had observed, that the probability of an ulcer continuing sound, depended much on the size of the cicatrix that remained after the cure appeared to be accomplished: and, knowing that the natural shield of the part, the true skin, was a much more substantial support and defence than what is obtained by the assistance of art, in the common methods of cure, he was induced to endeavour bringing the edges of these ulcers nearer together, by means of slips of adhesive plaster. This simple expedient, with the application of cold water every hour, during pain or inflammation, he has found succeed to his most sanguine wishes. He adduces some strong cases, of old deep ulcers seated in yielding parts, sub-

mitting to this treatment. From the apparent fidelity and candour which pervade the whole of his statements, and the success of the plan recommended in other hands, within my own knowledge, we may expect to see Mr. Baynton's improvement conferring a benefit as extensive as the populous poor of society. What renders this improvement so truly and incalculably advantageous, is, that the young and old, the decayed and emaciated, during the various stages of the cure, may support their general health by exercise, and prosecute their daily labours.

I now come to the last and greatest discovery of this, or perhaps any, splendid æra of medical improvement. I contemplate a blessing that extends its benign influence from the palace to the cottage; which, though wealth might rejoice to purchase, is accessible to poverty, without the suspension or loss of its useful labour. This is the happy introduction of the *Vaccine Inoculation*, to supersede the prevalence, and extirpate, *if possible*, the existence of that afflicting scourge the Small-Pox. To describe the simplicity of the inoculation, the safety of the disease, and the innocence of its effects, were superfluous, since each is become a matter of general notoriety. The opposition it met with, from

the *laudable* caution of medical men, and the fears of the timid and affectionate parent, begin to subside; indeed, may be said to disappear. Inaccurate statement of cases, and histories of the disease, where this inoculation was supposed to fail, or its effects to have disproved the allegations of its patrons and advocates, have, at various times, appeared; but a candid and able investigation of those cases which seemed of importance, have been always instituted by the promoters of the vaccine inoculation, with a zeal that bespoke philanthropy, and an alacrity that manifested conscious rectitude. The result of the investigation has answered their best wishes, and vindicated this noble discovery, by an easy detection of the blunders, incapacity, or oversight of those, in whose hands the cases were said to have failed. Various attempts have been made to deprive Doctor Jenner of the honour of being the discoverer of vaccine inoculation: as, however, none deny him the merit of first making the discovery of universal utility; and, in the words of Doctor Johnson, as "He only discovers who *proves*", such attempt will be despised as impotent, or condemned as invidious.

The first city in the world, with its chief magistrate at its head, aided and animated by

the first nobility, and most eminent commoners in the kingdom, has stood forward the patron of the vaccine inoculation. The British Legislature has expressed its mutually honourable approbation, by bestowing on its Author the munificent liberality of a great nation.

If life be dear;—if it be a blessing to preserve the index of the mind, and the feelings of the heart, from being impaired or blotted out of the countenance;—if one dread blow from the dagger of death be foiled, and a shield added to the feeble arm of man;—if these be objects of admiration and gratitude, we must venerate the victory gained over the ravages of the small-pox by Doctor Edward Jenner. How grateful is the office to speak the public gratitude: how exalted the happiness to deserve it!

Can I forget, then, *his* memory who pointed out to us so excellent a service? No!—addressing ourselves gratefully to the manes of the venerable Doctor Caius, let us exclaim, “O virum, utilem sibi, suis, rei-
“publicæ et humano generi!”

THE END.

(Bush, Ipswich.)



