Remarks on scepticism, especially as it is connected with the subjects of organization and life: being an answer to the views of M. Bichat, Sir T. C. Morgan, and Mr. Lawrence upon those points / by Thomas Rennell.

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OF

M. BICHAT, SIR T. C. MORGAN, AND MR. LAWRENCE UPON THOSE POINTS.

BY THE

REV. THOMAS RENNELL, A.M.

VICAR OF KENSINGTON,
AND CHRISTIAN ADVOCATE IN THE UNIVERSITY OF CAMERIDGE.

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ADVERTISEMENT.

HAVING witnessed with much regret a considerable advance of Sceptical principle upon the subjects of Organization and Life, I have considered it my duty, from the office which I hold in the University of Cambridge, to call the attention of the Public to the mischievous tendency of such opinions. The treatises, which I have been induced to notice, strike deep at the root of all Religion, both natural and revealed, and, as I have been lately informed upon the best authority, upon the minds of many they have had a considerable effect. To detect the fallacies, and expose the misrepresentations which appear in these publications, and to reconcile the views of the Philosopher and the Christian, is the design of the following Remarks.

By the Will of the late Rev. JOHN HULSE, the Christian Advocate is required to produce every year a publication, which may be an answer to cavils and objections brought against Natural or Revealed Religion, if any such shall appear, or which may tend to confute "any new or dangerous" error, either of Superstition or Enthusiasm:" as likewise to be ready to satisfy any real scruples or objections, in a private way, that may be brought from time to time by any fair and candid enquirer.

ERRATA.

P. 24, l. 10, before which insert with 37, l. 11, dele ever.

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REMARKS

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CHAPTER I.

On the Character of Modern Scepticism.

It is certainly to the credit of the age, that among the higher orders of our country, we find a general disposition both to speak and to act upon religious matters, with an appearance, at least, of propriety and respect. Such is the state of public feeling upon these points, that any glaring attempt to set up the standard of infidelity, would be considered as an outrage upon public decency; and so far from promoting, would rather diminish the success of the cause. But, notwithstanding this semblance of regard, we have little reason to imagine, that the enemies of Christianity have abated any thing of their real hostility, or that their progress is the less formidable, because it is the less apparent. There is a fashion in Scepticism, which readily adapts itself to the reigning humours and caprices of mankind; and though its purposes are ever the same, yet the shapes which it assumes, and the subjects to which it

is applied, vary with the peculiar character of the day. At one time it speaks in the language of open defiance, and indulges itself in the most indecent and blasphemous scurrility. At another it shelters itself under the garb of candid discussion and free enquiry. Sometimes the Scriptures of the New, but oftener those of the Old Testament, are the objects of its derision. Occasionally it will allow the authority of the Sacred Volume, but will so allegorize its contents, as to reduce them to the level of the lowest mysticism. In a former age it was contented with disputing the evidence of miracles, in later days it has grown bolder, and has doubted, most philosophically, the possibility of their existence. There is no principle, in short, either of natural or of revealed religion, no one evidence, no one doctrine, which has not, in its turn, been captiously questioned, or rudely assailed.

Christianity has had little reason to lament, either the variety, or the acuteness of its adversaries. Upon whatever side it has been attacked, it has shewn itself fully able to resist and to repel the assault. The more able its opponents, the more decisive has been its victory. The most brilliant exhibitions of human learning, and the most perfect specimens of the art of reasoning, are to be found among the works of those, who have dedicated their talents to the defence of Christianity. The writings of Bentley and Bryant, of Cudworth and Butler, of Warburton and Clarke, have not only survived, by

their own intrinsic worth, the memories of those, whose objections they were intended to refute, but will ever continue to shew to every rational mind, how impregnable in point both of evidence and of argument is the rock, upon which the foundations of the Gospel are laid.

Foiled in its attempts to forcibly dispossess Christianity of its strong hold in the understanding, infidelity would now enter into a sort of alliance with the very faith which it once assailed, and would divide the world between them upon equal terms. Creeds, in the sceptical language of the day, are to be considered among those private prejudices, which every man is at liberty to entertain, or to reject, according to the dictates of his own imagination; it being a matter of total indifference, among the variety which present themselves to his choice, which he may be pleased to adopt; the pretensions of none are to be questioned, nor are their foundations to be Now in this general equalization of disturbed. opinions, all the landmarks which can direct the understanding, or regulate the assent, are removed; and the claims of truth, as a standard and measure of the judgment, are utterly annihilated. To propagate the Gospel with success, among a nation of Heathens, the leading distinctions between truth and falsehood must previously be established; to diminish its influence among a nation of Christians, these distinctions must artfully be confounded. This could not be more effectually accomplished, than by inculcating

upon the minds of the rising generation, a total indifference as to the modifications of faith, or the varieties of religious worship. If it be admitted, that all creeds and forms are wholly indifferent, it may reasonably be inferred, that all are equally false. Principles wholly contradictory one to another, if they are equal in any respect, are equal only in a community of error.

It is a common notion in the present day, that the object of all religious worship being the same, it is immaterial by what path that object is to be attained. The sophistry of this representation is too palpable to delude any but the most unwary. The creeds of a Mahometan, of a Deist, and of a Christian, all inculcate the adoration of a God; but it cannot be argued from thence, that the God of all these is the same, or if he be the same, that he will be equally propitious to their contradictory modes of belief and worship. The systems of Newton and of Ptolemy, though they regard the same celestial bodies, are not, therefore, indifferently true; nor can it be immaterial to the astronomer, whether the sun or the earth be in the centre of the universe, excepting as he may consider both hypotheses to be equally improbable. It is upon this ground, that our indifference is soon transferred from each particular portion, to the sum and substance of the whole: and it is thus, that Scepticism, while it extends a general respect alike to all, inculcates those principles, which must finally lead to the adoption of none.

With a similar view it appears to be a great point with the patrons of modern infidelity, so to encourage the divisions of Christianity itself, as ultimately to reduce them to the same level, and thus insensibly to pave the way to their general rejection. dissensions of the Christian Church are, indeed, among the most fatal examples of the pride and perversity of man, arraying themselves against the wisdom and the mercy of God. They were foretold by the divine Author of our religion, and too fully has the event justified his prediction. But however various may be the forms, under which Christianity is professed, it does not follow, that they are all equal and indifferent. Some approach in the nearest possible degree to the truth; others stand at the remotest distance. Nor in this diversity of objects, are we left without criterions fully sufficient to regulate our judgment. Scripture and reason are the standards to which their contradictory claims are to be referred, and by these unerring measures, are we to estimate their merits, and to determine our choice. Scepticism, on the contrary, would represent the claims of each contending party as equal, and their merits as indifferent; and it is especially desirous of classing together the soberest piety with the wildest fanaticism, and the most indisputable reality with the grossest imposture. Now if the pretensions of every party or sect are to be considered as equally valid, and to be treated with equal respect, it follows, that they must be all reduced to the level of the lowest. That this is the aim of modern infidelity, may be fully proved, by a general reference to those books which are justly considered as the organs of its advocates. Perhaps the following passage, which concludes a very amusing article on the mission, as it is termed, of Joanna Southcott, will justify much that has been advanced upon the character of modern Scepticism.

"Upon the whole, the mission of Joanna Southcott is an extremely curious article in the history of
human credulity. But while we laugh at the simplicity of her disciples—we may all of us do well to
look homeward—and to consider, whether our own
belief is not, on various occasions, determined by
our feelings more than by evidence—whether we
are not sometimes duped by respected names, or
bold pretenders—and sometimes by our own
fancies—fears—or wishes*."

This passage, among various others of the same description, presents us with another leading trait in the character of modern Scepticism. It would represent our belief in Christianity, as a matter of faith, not of reason; of feeling, not of evidence. By those who are at all acquainted with the grounds of their religion, the fallacy which this assertion, or rather insinuation, contains, will be readily discovered. The Christian believes in the divine character, mission, and miracles of his Redeemer,

^{*} Edinburgh Review Feb. 1815.

upon the same grounds, precisely, as he believes in the expeditions of Julius Cæsar, or in the battle of Pharsalia. The Christian believes in the authenticity of the Sacred Volume, upon the same grounds as he believes in the authenticity of Cicero's first Philippic. The evidence in both cases, is the same in its nature, though different in its degree: the testimonies in favour of the miracles of Christianity, as far exceeding the testimonies in favour of any indifferent historical event, as the one transaction, in magnitude and importance, surpasses the other. It is upon such evidence, that we believe the divine authority of Christ; and when that authority is thus established, then, and not till then, we repose our faith in the promises of heaven, and submit our understanding to a revelation, which we can prove by our reason to have come from God. Nor even here do we lose sight of our earthly guide; it is our reason, by which we are enabled to form a right estimate of the will of our heavenly Master, it is by reason, that we deduce from Scripture, those doctrines which are, subsequently, the objects of our implicit confidence. When, therefore, under pretence of superior respect, religion is considered as a matter not of reason, but of faith, its claims upon our understandings and hearts are fatally misrepresented. Christianity has little cause to fear that scrutinizing spirit, which will teach men "to look homewards and consider;" it would only protest against those respectful insinuations, which just go

far enough to awaken doubt, without promoting thought, and would hint to mankind, that what they embrace without conviction, they are to reject without enquiry.

Upon grounds similar to these, a total silence with respect to all religious principle is often observable in those researches, the very subjects of which would open a noble field for contemplation on the wonders and the works of God. The analysis of the human mind, the history of legislation, philosophy, natural as well as moral, anatomy, physiology, are studies, in which the power, the wisdom, and the dispensations of the Almighty, are almost forced even upon our unwilling notice. Yet such is the fashion of the age, that upon these and similar subjects, every consideration of the Deity is cautiously and laboriously excluded. The great principle of the infidel school in France, and of their copyists in Great Britain, is to destroy the relation of the creature to the Creator, and to establish the independence of man upon God. This is to be effected not by an open denial of his existence, but by the substitution of certain highsounding phrases, which are to be considered as an equivalent for his power. The "laws of nature," the "vital properties," the "energies of the mind," are among the mysterious phantoms which are to supersede the will and the wisdom of God. It will be seen in the course of the present enquiry, to what absurdities, in point of argument, these substitutions inevitably lead. But however effectual such fallacies may be, in blinding the eyes of the young, and confusing the notions of the ignorant, it is not by evasions like these, that the dispensations of the Almighty are to be frustrated, or his Providence annulled.

It cannot, on the other hand, be desired, that the details, either of natural or moral philosophy, should be perpetually interlarded with scraps of theology, as the interest neither of religion, nor of science, would be advanced by so inconsistent a mixture. But most important it is, that in every department of philosophy, the mind should be led upward to discern the intimate connection and absolute dependence of all things upon God; that their beginning should be traced to the causation of his power, and their end to the fulfilment of his will. It was this, which added to the researches of Newton, of Bacon, and of Locke, an elevation, a clearness, and a consistency, to which, otherwise, even with the powers of their mighty minds, they could never have attained. They drank deep of the fountain of all truth; they began and they ended in God. In Newton especially, to whom it was reserved, to bring the universe, and the laws which govern the universe, to light, we observe this prostration of soul, before the first great Cause of all things. It is recorded of him, that he never pronounced the name of Gop without a reverential pause. In a private letter to Dr. Bentley, he there acknowledges the great end and purpose of all his labours. "When I wrote my treatise about our

" system, I had an eye upon such principles as might " work with considerate men for the belief of a Deity; "and nothing can rejoice me more, than to find it "useful for that purpose. But if I have done the " public any service this way, it is due to nothing but "industry and patient thought *." Yet we do not find, although this object is ever in his view, that his researches are the less profound, his reasonings the less luminous, or his intellect the less penetrating. Most remarkable, indeed, are the words in which he closes up the third book of his immortal Principia. "This most beautiful construction of the planets, " and of the comets, could not have had a beginning, "without the design and the command of an intelli-" gent and a powerful being."-From thence he proceeds to describe, in language at once the most simple and the most philosophical, the nature and attributes of God, and thus concludes-

"As a blind man hath not an idea of colours, so we have not an idea of the modes in which God perceives and understands all things. He is entirely destitute of all body and bodily figure, and, therefore, cannot be seen, nor heard, nor touched, nor ought he to be worshipped under the representation of any corporeal object. We have ideas of his attributes, but what is the substance of any thing we little understand. We see only the figures and colours of bodies, we hear only sounds, we touch

^{*} Newton's Works, Edit. Horsley, vol. iv. p. 430.

"only external surfaces, we smell only odours, and "distinguish tastes: we are acquainted with the in-"ternal substances by no sense, no reflex act: and " much less have we the idea of the substance of God. "We know him only by his properties and attributes, "and by his most wise and good constructions of "things, and their final causes; and we admire him " for his perfections; but we reverence and worship " him for his dominion. For we worship him as ser-" vants; and God without dominion, providence, and "final causes, is nothing else but fate and nature. " From blind metaphysical necessity, which is surely " the same at all times, and in all places, no variation " in things can arise. All the diversities of things " created, in reference both to place and time, could "have arisen only from the ideas and the will of a " necessarily existing being. But God is allegorically " said to see, to hear, to speak, to laugh, to love, to " hate, to desire, to give, to receive, to rejoice, to be "angry, to fight, to form, to create, to construct. " For all language, as applied to God, is taken from " the affairs of men, by some resemblance, not indeed " a perfect one, but yet existing to a certain degree. " And so much with respect to God, concerning whom " it clearly appertaineth to natural philosophy, to dis-" course, from the phenomena presented to its view." What a contrast do these and other declarations of the same great master of human reason, form

with the subtle insinuations and designing sophistry

of D'Alembert and his fraternity; who were the first

to lay the foundation of that school of infidelity. which, with very few changes in its character, has continued down to the present day. In the French Encyclopædia, the articles in which religion were immediately discussed, were furnished by the most orthodox divines, and the subject was treated with all possible respect. A reference however was often given at the conclusion, to a sceptical treatise on some other point, in which all that had been previously advanced, was tacitly counteracted. In the articles, again, upon natural philosophy, it was their especial aim, so artfully to introduce the principles of infidelity, that the unwary reader, while he least suspected it, should most deeply imbibe the fatal poison. Thus, while every apparent veneration was paid to the religion which they detested, its foundations were gradually undermined, and its influence annihilated, till, in one moment, the superstructure fell in, and on the ruins of the temple of God, was erected the Babel of Atheism, blasphemy, and confusion.

But while among the higher orders of our country, infidelity veils itself under the mask of outward decency and respect, we shall find, that as we descend in the rank of society, it stands displayed in all its darkest colours. At no time were young men of moderate education and rank, more fatally assailed by the emissaries of Atheism, than in the present day. In the lower departments of the law, of medicine, and of the counting-house, every dangerous and destructive principle is making an alarming

way. Unable of themselves to distinguish ribaldry from wit, or assertion from argument, they are flattered by the appeal made by infidelity to their understandings, and they become the willing victims of the grossest imposture. A paltry Sunday paper, the vehicle of blasphemy and Atheism, mixed up with a little vulgar criticism and pert scurrility, has perverted the principles, and ruined the morals, of no inconsiderable portion of our youth; in that rank of life, especially, which is above the influence of authority, and below the exercise of reason. Among the lower classes of society, less danger is, perhaps, to be apprehended. The enlarged and practical lessons of pure and united Christianity, which, under the influence of the National Society, are now inculcated upon the minds of our rising population, are such as infidelity will never efface. Under the blessing of Providence, an effectual barrier will be thus interposed, between the great mass of our community, and the contagion of so fatal a disease—a barrier, which men of sceptical principles, even under the pretence of extending instruction to all, are making every attempt to undermine and to destroy.

But, whatever may be the character which scepticism assumes, whether it be that of vulgar blasphemy, or of decorous indifference, its operation both on the interests of society, and on the mind of the individual, is the same. The same uniformity which appears in its effects, appears also in its causes. In whatever rank of society it prevails, we trace the

disease to the same origin, to the prevalence of the same habits, and to the indulgence of the same propensities. In entering, therefore, upon this part of the subject, our enquiries will assume a general form; it being their design to shew, that whatever doubts are entertained upon the subject of religion, whether it be by those of a higher, or of a more moderate rank in society, they arise from the action of those common principles, which are least suspected perhaps by those, upon whom their operation is the most constant.

CHAPTER H.

Causes of a Sceptical Turn of Mind, divided into Moral and Intellectual. Moral Causes—Indulgence of Licentious Habits—Pride.

In all diseases, whether of the body or of the mind, it is necessary for those who would apply an adequate and an efficacious remedy, to carry their objections below the surface of the evil, and to consider well the nature and tendency of those habits which both produce and confirm the disorder. Until a search has been made into the ulterior causes of the complaint, all the attention and care which can be paid to its external appearance will end in disappointment, and will often rather aggravate than diminish the malady. Scepticism is one of those diseases which is deeply seated in the very constitution of the mind; and its hostility is directed rather against religion as a whole, than against any particular part or modification of it. Did it content itself with rejecting the Gospel alone, it might fairly be supposed to entertain some particular objections either to the evidences or to the doctrines, which might be rationally discussed and speedily determined. But the rejection of the Gospel is only a part of the disorder; the uniform tendency of Scep-

ticism, is to undermine the foundations upon which any reasonable belief in a superintending Providence or an immortal soul can securely rest. Few men, indeed, are enemies to Revealed Religion, who are not equally hostile to that which is termed Natural: for however they may differ in their extent, the origin of both religions is the same, and the very same reasons which lead a man upwards to Deism, would, if properly pursued, conduct him to the surer eminence of the Gospel. For notwithstanding we may sometimes persuade ourselves to the contrary, Deism is but a creature of the imagination, and however anxiously it is at first pursued, it is soon intercepted by some other object; or, like a shadow, at the very first turn we take, it vanishes from our view. Even the very authors, who in one part of their writings have raised the fabric of Deism in all its ideal beauty, in another have demolished the air-built edifice, and confessed themselves the disciples of the lowest Scepticism. When then we hear objections started against the Christian dispensation, we may be generally assured, that these are only the superficial symptoms of the disease, but that the real seat of the disorder is below. -It is not to the Gospel, but to the author of the Gospel, that the hostility of Scepticism is ultimately to be referred.

Of those indeed who have been recovered from this fearful malady, and have been restored to the health, the strength, and the life of Christianity, few have ever been persuaded by any particular arguments, because no particular arguments can reach the seat of the disease. The common process of Scepticism is, first to reject the whole, and then to question the validity of each component part. The application therefore of the remedy must be analogous to the course of the disorder; the mind must first be prepared for the reception of the whole, before it can be induced to abandon an objection to any particular part. Now this process cannot be better conducted, than by carrying our attention to the real and actuating causes of rejection.

To descend into our own hearts, to lay open the secret springs of our action, even to ourselves, is a difficult and disagreeable task. Much as we dread the exposure of our motives to others, we shrink still more from the discovery of them to ourselves. If Scepticism however be, as it is represented to be, the result of patient investigation; surely, of all men, the Sceptic will have the least reason to complain of the enquiry being carried below the surface, even into the very recesses of his soul. And if in the course of that enquiry he shall find, that the real motives of his rejection were unsuspected even by himself, he will surely not object to bring the cause a second time before the bar of his reason, and calmly to consider whether his first decision was not given under an undue and an unworthy influence; and whether if that influence be removed, the whole cause will not take a different turn, and be concluded by an opposite determination

In considering then the real causes of Scepticism, we shall not be accused of uncandid views of human motives: if the causes which we assign are just, it is highly expedient that they should be laid open, that by exhibiting the actual seat of the disorder, other remedies than those usually prescribed, may be generally and effectually applied. On the contrary, should the operation of the causes in this instance be denied, they yet remain among the first passions and principles of our nature, and as such, it is well that their future incursions should be guarded against, especially by those who are the least willing to allow their operation.

The causes of Scepticism may be divided into moral and intellectual. In some cases they act singly, in others conjointly; sometimes one is predominant, sometimes another; but though combined in great variety, their mode of operation is uniform, and their object the same: and before any recovery from the disease can be expected, their tendency must be counteracted and their influence diminished.

Of the moral causes which may be assigned for the prevalence of Sceptical principles in the mind, the first is the induced of licentious habits.

Religion would not have so many enemies to contend with in the world, if it did not place so severe a constraint upon the passions and propensities of mankind. Indeed we shall generally find, that in those countries where Christianity is professed in its greatest purity, its enemies are the most rancorous and malig-

nant. In no country perhaps have they displayed so violent, and as it were so personal an animosity to the Gospel, as in our own; an animosity provoked the more by the mild and inoffensive form of Christianity there established, which though adorned with all the charity which its Divine Author prescribes, relaxes no sanction, compromises no duty.

Although it has often been attempted, and sometimes with too much success, to reconcile the practice of licentiousness with the hopes of the Gospel; yet in a rational and an honest mind, the union of these two opposite principles never can be permanently effected. In the Christian dispensation indeed, faith and morals are so anxiously united, and the sanctions of future rewards and punishments are so interwoven with the whole system, that no ordinary sophistry can dissolve the connection. In the season of life when temptations most abound, the difficulty and the danger begins. To the man, who, in his early years, is now abandoning himself more and more to the gratification of his passions and to the neglect of his duty, two lines of conduct present themselves: on the one side, hypocrisy would tempt him to throw the veil of sanctity over his vices; on the other, infidelity would teach him to question the principles upon which those vices stand condemned. A young mind is generally an honest mind. The suggestions of the first are rejected with the scorn which they deserve; while the last is gradually admitted as an inmate and a casuist to the soul. Though the yoke of Christianity is then it is still; to him especially who has already placed himself under the dominion of another and an opposite master. To worship that God against whose commands he lives in daily rebellion, is a fraud upon himself, and an insult upon the Almighty. To read and study a Gospel, every page of which while it inculcates purity under the liveliest hopes, condemns iniquity under the severest penalties, is indeed an irritating, an impossible task. Prayer then is forgotten, and the Scriptures are abandoned and the two great avenues of religion being thus closed on the mind, it gradually loses sight of all those hopes and fears which had formerly an influence upon its determination.

Still, however, though it would not remember, it cannot forget. The sanctions of the Gospel by long neglect are diminished; but enough will yet remain to irritate, though not to reform. At this period of the disease, the mind begins to invalidate at once the authority of the sanction and the reason of the command. It has long since rejected the substance of Christianity, and is now contented to grapple with its shadow. If, then, in a course of profligacy and vice, the cavils of infidelity are presented even in their most contemptible form, it cannot be wondered that the man should fall a ready victim to the assault. It is probable that the proofs, it is certain that the precepts of the Gospel are forgotten. Plausible objections are raised, to which his inclination will

permit him neither to seek, nor even to desire an answer. When the will is depraved, the understanding is seldom free. For even allowing that we cannot refuse our assent to truth, yet we are at all times able to prevent a fair discussion of its merits within ourselves, and thus, in fact, to keep our understanding under the influence of our will. There are a few instances indeed, where on indifferent subjects, its natural powers will rise superior to every obstacle; yet common experience will assure us, that a vicious life will too often dissipate the powers and pervert the judgment, even of the strongest understanding. Much more then upon a subject where no worldly reputation is at stake, will a man surrender it at discretion to his licentious inclinations. The doctrines of Christianity appear distorted to his mind, while he little thinks that the cause of the distortion is not in the object, but in the medium through which it is viewed.

That men question the doctrines of Christianity, because they dislike the practice, will appear in a still stronger point of view, if we consider the tendency of that scepticism to which they betake themselves. Were they to resort to a system apparently more pure than that which the Gospel presents, they might shelter themselves at least under the plea of an impartial rejection. But it is not so much to any particular dispensation, as to the general notions of a moral governor, and of future rewards and punishments, that they entertain so rooted an antipathy. To

future rewards, indeed, taken by themselves, they seldom raise an objection; their great aim is to diminish the terror of those future punishments, which are so closely connected with them. Scepticism is most indulgent to the passions; and this indulgence is the uniform end and determination of all its objections, and of all its principles. Whether it be liberty, or whether it be necessity, which it would inculcate, all responsibility for action is to be abolished. Men will reason themselves out of the belief of a superintending Providence—and why? They choose not a Being to be about their path, and about their bed, and to spy out all their ways. They will resolve God into fate, the world into God —that his Almighty nature may be disarmed of its retributive justice. They will make the soul a component part of this frail and corruptible frame-that it may perish with the organ and instrument of its lusts.

But here it may be objected, as an uncandid statement of the case, that all sceptics in principle are, therefore, profligates in conduct. In the first place it is to be observed, that licentious indulgence, though by far the most common, is not the only source of infidelity; there are others, which, as we shall see hereafter, are fully sufficient to account for the very few, whose morals are coldly correct, and whose lives have not been disgraced by any notorious crime. But, secondly, we are to consider, not what the morals of the sceptic are now, when ex-

ternal circumstances may have removed the temptation, or counterbalanced the pleasures of vice; but what they were, when his hostility to religious principles first began. In too many instances we shall find, that the effect continues, long after the original cause has ceased to act.

To conclude this part of the subject, I would put the converse practically to the hearts and consciences of all; and would enquire, whether it is in the moment of victory over passion and sensual indulgence, that they dispute the existence of that power which enabled them to atchieve it-whether it is in the act of relieving the distresses of their afflicted brethren, that they despise the love of that Saviour, who has identified himself with them? Let a man but obey the morals of the Gospel, (which are the morals of a purified and exalted reason) and he will never cavil against its doctrines. Let him that is inclined to be sceptical on the subject of the soul's immortality, always act, as if it really existed, and he will soon abandon every objection to its existence.

The second moral cause, which gives a Sceptical disposition to the mind, is PRIDE.

Of all the affections of our moral frame, pride is the most extensive in its degree, and the most varied in its operation; it acts differently upon different tempers, and is combined with feelings and habits apparently the most opposite. But however complicated in its connections, and diversified in its symptoms, the passion is still the same; and under every system, Heathen as well as Christian, it has justly been considered as the disordered action of a principle, implanted in our nature for a better purpose—to raise us above the degradation of vice, and to stimulate us to the acquisition of virtue.

In our common intercourse with the world, we see the action of this principle, in exalting man in his own estimation, above his proper level: we see the fantastic notions which it inspires him of himself, and the false views which it presents to him of his relations with others. But if such is the delusion and mist in which he is involved, with respect to those persons and things immediately surrounding him, and in the midst of so many events to regulate his judgment and to correct his error, can we wonder, if in the estimate he forms of relations yet more distant, and of a Being far removed, the same erroneous principle shall accompany and direct him? especially when these relations, though for the present at a distance, press notwithstanding in anticipation upon his mind, and involve the same question of selfish estimation, and selfish independence.

The darling desire of the human mind is to be independent upon God. Man, the lord of the creation, would acknowledge no other light but that of his own understanding, no other law but that of his own will, no other tribunal but that of his own heart. It is not, however, so much to the simple superintendence of a superior Being, to which he would object, as to the power of punishment which such a Being must finally possess. This is the obstacle which our proud nature cannot surmount, this is the degradation to which it cannot submit. Nor is this the feeling only of the licentious, or the profligate, but sometimes even of those, whose lives are as little stained with acts of positive vice, as human frailty can allow. There is a pride which leads us onward to Scepticism, by its speculations on the perfectibility of human nature, and even by the consciousness of our comparative purity-a pride which would conceal the necessary infirmities of our fallen nature, first from the creature, and then from the Creatora pride which would tempt us to reject any, and every system of religion, under which we find, that for our offences, be they what they may, we must be called to an account.

But if there be a pride in human virtue, there is a pride also in human vice. The dignity of human nature is violated by sensual indulgence; where pride, then, is a ruling passion in the mind, some indemnity is required against the degradation which it has undergone. It is upon this principle of indemnification, that insolence and sensuality so often accompany and support each other. But strongly as this principle operates in our intercourse with men, it acts with still stronger force when applied to God. Disobedience is to be justified by rebellion, and the spirit which was too weak to oppose the act of vice, thinks to vindicate its strength by resist-

ing its consequences. It is an easy task, indeed, to boast a victory in anticipation over a distant enemy; yet such is the triumph which the pride of sensuality proclaims over the mercy and the justice of God.

There are others, again, whose pride assumes a different form, and carries them onwards to the same end, through a channel totally distinct. There is in our nature a spirit of emulation, which points our view to riches and honour, to rank and power, and to all those things which give us a superiority above those around us, and station us on an eminence as the objects of their admiration and applause. And, certainly, of all the eminences to which our ambition could aspire, that of Scepticism is, in its ascent, the most contemptibly easy. It is but to insinuate a few trite and guarded objections, it is but to scatter a few stale and stolen sarcasms, and the Sceptic is at the very height of his hopes, and has reached the very summit of his ambition. He considers himself separated from the herd of mankind, and emancipated from all vulgar prejudices; if a teacher, he is the idol of his little school; if a hearer, he is one of the enlightened few; and finally, though Sceptical on the attributes of God, he is fully confident in the superiority of his own.

Men are apt to flatter themselves, that general Scepticism is the sign of a powerful and an original mind, and that where there is doubt, there is also depth. But as a wise and vigorous plan of action is not to be defeated by trifling accidents, so neither is a strong and masterly understanding to be perplexed by paltry doubts. That we can easily disturb and darken its waters, arises not from the depth, but from the shallowness of the stream. Scepticism is no more the sign of intellectual strength, than credulity. They are both equally inimical to truth, and are the characteristics alike of a man unable to judge for himself. Yet so flattering is the semblance of singularity, and so fascinating the love of paradox, that we would readily sacrifice the substance of our reason to the shadows of our imagination.

There is another feeling of human pride, which in the days of our youth, our health, and our strength, is especially predominant. Entrusted as we are with the faculties of our minds and our bodies at our own disposal, endowed with the means of improving them at our will, and rewarded with the full produce of our improvements, we identify all these powers with the nature in which they reside, and conceive ourselves as principals, not instruments, in their exercise. From this mistaken view of our talents, and their origin, we travel onwards, until we come to an absolute rejection of all that would interfere with their high prerogatives. The light which reason affords, we proudly consider as fully sufficient for every purpose, both of action and information. Long before we come to the proof, we close our eyes against the notion, either of a Providence or of a Revelation. Not that we consider this Providence, or Revelation, so unworthy of God, as of ourselves. Nor is it to a revelation only of the will, but to a demonstration even of the attributes of God, that such men object, as totally unrequired. The creature would disown the Creator; man would be independent upon God.

And, yet, though independent on God, he cannot be independent on his fellow-creatures. How to the most proud and haughty spirit among us, does the experience of common life, and the deductions of his very reason, speak in the awful words of Revelation to his soul. "Thou sayest, I am rich and "increased with goods, and have need of no-"thing—and knowest not, that thou art wretched, "and miserable, and poor, and blind, and "naked *."

And this is a voice, which, while it speaks in truth, is heard with terror. When the dreams of a man's proud youth are past, when the season of his gaiety and spirit are fled, when all the sad realities of life croud in upon him, then it is that he sees how frail and how helpless a being he is; how all the visions of his fancy have vanished, how full of disappointment is the past; how dark, yet how alarming is the future; then it is that the disease has worked its re-

^{*} Rev. iii. 17.

medy, and pride has contributed to its own fall. In such a temper of mind the Gospel is often received; less, perhaps, from any particular argument in its favour, than from its general tendency to give satisfaction and comfort, when every other source has utterly failed.

Happy, indeed, it is for a man, when the disease shall have taken so providential a turn. There may be a fascinating elevation in the first draught of infidelity, but the dregs are spiritless and bitter. There are a few cases, and we hope that they are but few, where the same pride of human independence and talent, which in the season of youth generated insolence and conceit, in the decline of age has sunk into spleen, disappointment, and misery. Doubts and fears succeed each other in dreary and desperate succession. Peevish irritation, ill concealed under the cloak of affected philosophy, too surely mark an arrogant and a visionary independence, wounded by approaching reality. A stronger practical argument for the Gospel could not be adduced, than the chamber of an aged and a sinking Sceptic.

The mind cannot be more effectually prepared for the reception of the Gospel, than by placing all human events before it in their real light, and man on his proper level. Could the proud and independent Sceptic be once induced to view himself, and all around him, in the colours which they must soon put on, and to estimate all that this world can afford, according to its just value, his mind would be soon subdued into a manly and an effective belief; and reason, which is now exalted as the enemy of Revelation, would then become its brightest ornament, and its surest ally.

CHAPTER III.

Intellectual Causes of Scepticism—Ignorance—Insufficiency of all Human Knowledge.

THE first and by far the most common cause of Scepticism, as far as the understanding is concerned, is ignorance. Of those who reject Revelation, and with it the great doctrines of natural religion, which Revelation both clears and confirms, few, very few, have ever troubled themselves to form any acquaintance with the real merits of a question, upon which they so peremptorily decide. The nature of evidence in general, the particular testimony upon which the Gospel is proposed, are points to which their enquiries have never been directed. Of those who dispute the Divine authority of the Scriptures, not one in a thousand have ever read through the volume which they condemn. Much less have they traced the origin, order, and succession of its parts, enquired into the different circumstances under which each was written, compared them with the records of antiquity which we derive from other sources, or in short, expended even the slightest care and diligence upon a matter of so much concern.

In every stage of Scepticism, there is a very suspicious facility. In other enquiries the road even to the simplest truth, though direct, is steep and rugged, and the first sign of our having quitted the path, is the easiness of the ground on which we wander. Can we suppose, that religious truth is situated on an eminence less difficult, or that the ascent is less arduous? The Sun of Righteousness, like the luminary in the heavens, is the fountain of light and heat, even to the meanest of the creation; but it is not, therefore, the less long or the less laborious task to investigate the laws under which its rays are transmitted, or to understand the phænomena attending their transmission.

Whatever then may be the termination of the enquiry, even from the very nature and extent of the subject, the discussion must be patient. Now how different is this method of proceeding, from the thoughtless rapidity of Sceptical rejection. A young man of education and talents moderately good, is unfortunately introduced into a society, in which he hears the authority of religion disputed, and its sanctions disregarded. An infidel book is, perhaps, placed in his hands, in which he finds a few plausible arguments advanced against a system, which he has hitherto considered as impregnable. The very novelty arrests his attention, and every objection startles him the more as he feels his inability to

advance any satisfactory solution. New doubts and difficulties arise, which he cherishes and repeats, till they assume a substantial form, and are fixed in the character of established truth. Too uninformed to supply the answers from within, too careless to seek them from without, he deems the objections solid; and because they are unanswered, he considers them as unanswerable. Sophistry has a peculiar power of insinuating itself into an unsuspecting mind, especially when it is accompanied with that levity, which passes for sincerity with the young, and with that sarcasm, which passes for sagacity with the ignorant. Disarm the sceptic of his sneer, and you deprive him of his surest and most successful weapon.-Many a mind which had steadiness enough to withstand the assault of argument, has fallen before a dark and a mysterious sarcasm. Now in all this process, where do we discover the workings of that reason, which is the boasted support of Scepticism? Surely a mind that can adopt the principles of infidelity, on the grounds and in the manner which has been described, is under the influence, not of reason, but of imposture. When a man can be induced to reject a system, without any acquaintance with its merits, without any examination of its evidences; when he can mistake sophistry for argument, and sarcasm for refutation, surely it cannot be his reason which directs the decision. Reason, in the very first stage of the matter, has been abandoned. Reason, and Christianity, which is the religion of reason, demand an impartial, calm, and laborious investigation. Infidelity and its advocates pursue a different plan, even upon a point in which all their hopes and fears are involved: advocates at once, and judges in their own cause, they decide without a trial, they condemn without a defence.

That ignorance, and not examination, is the ground-work of Scepticism, is shewn still more convincingly from the writings of those who have distinguished themselves in its cause. Of those who have attacked the Scriptures, there is not one who does not stand convicted of the grossest mistakes, both with respect to their evidence, their language, and their interpretation. Nor have the assailants of natural religion been defeated with less disgrace. Yet these are the men, from Bolingbroke and Hume down to Voltaire and Paine, whose convicted calumnies are circulated among those, whose understanding is too weak to resist the assault, and whose education has been too much neglected to furnish them with the defence.

Before a young man shall listen to the sophistry, by which it is probable that in his passage through life he will some time or other be assailed, it would be well for him to determine, how far either his education, his talents, or his opportunities, will enable him patiently to investigate, and fairly to discuss, the merits of the question. If he finds that he has the means, let him also have the will to carry his enquiries into the very foundation of his faith. Let every testimony be sifted by the laws of the strictest evi-

dence, let every argument be examined by the process of the soundest reason. Of an examination so conducted, Christianity will not fear the result. From the severest trials which true wisdom can apply, the Gospel will rise, like gold from the refiner's fire, purer and yet more pure.

Should however a young man find that he has not the full means of enquiry, the investigation surely is unfair, and the attempt dangerous. If he was once persuaded by argument of the truth of the Gospel, but has now forgotten the reasonings on which his assent was founded, let him bear in mind this simple, but most important truth; that a proposition once proved to be true, still remains so, although he may have forgotten the proof.

If, on the contrary, his religion has been received on the authority of others, on the same basis let it rest. He need not be ashamed of a faith, which had Newton, Bacon, and Locke for its supporters and advocates. The shrine before which these high and independent spirits, with thousands their fellows, bent their mighty minds in humble prostration, was the throne of the living God.

But here it may perhaps be alleged, that the groundwork of Belief and Scepticism are the same; and that while we object to ignorance as the cause of the one, we accept it as the foundation of the other. If religion were a matter of speculation only, the objection would be valid; but in Christianity there is something beyond dry and barren theory.

It is from the ignorance of this ulterior purpose, that Scepticism takes such root in the mind. Would men acquaint themselves, as the poorest and meanest in this happy country may do, with the spirit of the Gospel; would they admit its hopes, its fears, and its consolations within their breasts, would they incorporate it with their understandings and hearts, they would then see how paltry is the sophistry of all Scepticism and Infidelity, when compared with the soundness, simplicity, and worth of the Christian faith.

But de we not here take for granted the point in question, and recommend, not that we should believe the Gospel because it is true, but that we should consider it as true because we believe it? By no means, the course here recommended is one, in which experience is to be the criterion. Let us take Christianity, not as a speculative system, but as a medicine to the soul. Let us consider it as a medicine, of which we know not the composition. If we find, notwithstanding our zealous and repeated application of the remedy, that the disease remains the same, we may reasonably doubt whether the remedy is such as it has been represented. If, on the contrary, we find that its effects are far beyond our expectation, we may fairly and practically infer, that the authority which recommended it to our acceptance is good. Indeed after all our deep and laborious enquiries into the evidences and the grounds of our belief; if we have not applied this belief, according to its intention, as a medicine and a comfort to our souls; we are still ignorant of a very important part of its nature; namely, of its effect: and if, without such investigation, we do so apply it as to make experiment of its effect, we have a rational ground either for its rejection or for its continuance. Till that application has been made, our ignorance stands confessed: and yet upon this ignorance Scepticism especially relies. Moral causes indeed may intervene to spread a cloud of practical infidelity over a soul which has felt the strong effects of Christian faith; but never was there yet an instance, where after such a trial, Christianity was ever rejected upon grounds purely intellectual.

Immediately consequent upon our ignorance, is the false estimate which we are apt to form of the nature and effects of the Christian faith. It is not from the purity, but from the perversion of the Gospel, that infidelity forms its estimate. It sees under one form of religion, bigotry, idolatry, and superstition; under another, severity, sourness, and hypocrisy; and it is willing to take the opposite testimonies of their several professors, that both these extremes proceed alike from the Gospel. Another and perhaps a more common objection starts into view. The loud and exclusive pretensions of certain orders, to the doctrines, to the knowledge, and to the very salvation of the Gospel, strike the ear of the Sceptic. He sees them indeed not as other men, perhaps not as himself, indulging in sensual profligacy and open immorality; but he discovers in them vices of another but not a less dangerous order, pride, rapacity, intrigue, deceit,

delusion: these and others of the same class he sees prominent in their life and conduct. He argues, therefore, that though certain vices are condemned, others are encouraged under the system of the Gospel; and under such a view of the matter, he feels every conclusion which he might previously have made, strengthened and confirmed. Here also a little examination below the surface might be expedient. Would he investigate for himself the laws of Christianity, and the terms of its salvation, he would find, that the very vices which he condemns, are there condemned, and that every such system of compromise and delusion is not more injurious to the character, than it is contradictory to the spirit of the Gospel. It is ignorance alone, or prejudice the offspring of ignorance, that would argue from the perversion against the purity, from the abuse against the use.

The second intellectual cause of Scepticism, is THE IMPERFECTION OF ALL HUMAN KNOWLEDGE. This cause can be traced to the understandings only of a few; but these few are perhaps of more influence, from their character and their example, than even they themselves might at first imagine.

In every department of scientific research, there appears to be a limit, beyond which all investigation ends in disappointment and obscurity. The rays of human knowledge, when carried beyond their focus, diverge and are lost. In the attempt to trace the laws either of mind or of matter up to their ultimate sources, a link is lost in the chain, which no human

ingenuity can supply. The investigation becomes more and more intricate, yet still we proceed, in the hope that the intensity of our application and the subtilty of our enquiries will supply the deficiency. But the more minute and the more varied our researches, to the greater distance our object recedes; we are tempted to proceed beyond our clue, till we are lost in the mazes of inextricable confusion. We do not know enough to assign any ultimate cause for the various phenomena which are presented to our view. We know not how a stone falls to the ground; we know not how the liver secretes bile; we know not why certain compounds crystallize into certain forms. We know and we trace the effects; but when we would assign an ultimate cause, or in plainer language, the reason why and the manner how, our knowledge and our understandings totally fail us. If by extreme labour and ingenuity we can get a step or two backwards, we shall still find that our investigation leads only to a more minute and perfect knowledge of the effect, while of the cause we are still as ignorant as ever.

Yet notwithstanding the disappointment which attends our enquiries, we refuse to repose ourselves upon that ignorance, which reason itself, in this stage of the matter would advise and approve. In the mean time, the mind foiled in its repeated endeavours, becomes sour and dissatisfied with itself; and since even in the department upon which it has expended all its talents and assiduity, its deepest researches ter-

minate in doubt and uncertainty; it concludes that in every other department the same obscurity prevails; and it finally extends the argument from the works of the Creator to the Creator himself.

Now it may first be remarked, that habits of very minute enquiry in any department of philosophy, have a tendency rather to contract than to enlarge the understanding. As we proceed upwards in the stream of science, we find a thousand little channels multiplying themselves in every direction, in the pursuit of which we often suffer our attention to be so far absorbed, as to forget the ends, while we are investigating the sources, of things around us. We study parts rather than the whole; and what we gain in our powers of division, we lose in our nobler faculty of combination. It may also be remarked, that the minds of some who have been exclusively accustomed to strict mathematical demonstration, are often indisposed to give to moral evidence its just value, and duly to estimate the degrees of that probability, which is the very guide of life. Here again, what we gain in the habit of close and laborious thinking, we lose in the power of ready judgement and practical discrimination.

In both these cases, the imperfect state of human knowledge has a strong tendency to lead men into an indecisive and a sceptical turn of mind upon all those subjects which are not the objects of immediate sense, or of mathematical demonstration. Religion, whether natural or revealed, is the object of neither. The

being and attributes of God are not proclaimed by a daily voice from Heaven, nor is the truth of the Gospel capable of the same sort of proof as a proposition in Euclid. Yet from an enlarged and general view of the frame and constitution of things around us, we are as morally certain of the existence of their first Almighty cause, as we are sensibly convinced of the existence of the things themselves: and if we examine the evidence, upon which our assent to Christianity is grounded, we shall find that it approaches as nearly to actual assurance, as the nature of any testimony will admit. They who are not contented with this, expect more than it is reasonable for God to give, or for man to require.

Would men be tempted to consider of what know-ledge they are really capable, and to what uses that knowledge may be applied; would they but compare the proportion of power which they possess, to the field allowed for its exercise, so far from resting their Scepticism on the imperfection of their intellectual power, they would see the wisdom of the Almighty in contracting its span. They would trace the immediate agency of the Divinity in all his works, they would see the means uniformly proportioned to the end, and the instrument adapted to the hand which is to use it. Enough light is afforded us for every purpose which our situation on earth could require; we have knowledge enough, not indeed to satisfy the intemperance of curiosity, nor to convert

faith into certainty, but we have enough to guide our feet in the paths of our duty here, and to discover to us the road which leads to happiness hereafter. Here then let us rest: in religion as well as in nature, difficulties and obscurities must daily and hourly occur, from the necessary imperfection of all human knowledge; in these, it is the province of true wisdom patiently to acquiesce. " And when," in the words of Mr. Locke, " we have well surveyed the powers of " our own minds, and made some estimate of what we "can expect from them, we shall not be inclined " either to sit still, and not set our thoughts on work "at all in despair of knowing any thing, or on the " other side, question every thing and disclaim all "knowledge, because some things are not to be un-" derstood *."

So far then from encouraging Sceptical views upon the subject of religion, the very consciousness of its imperfect knowledge, would lead the mind of a rational man, to repose itself with increasing confidence on the wisdom and on the promises of God. The time will surely come, when the veil which now obscures our vision shall be removed; when all the difficulties which now perplex us shall be unravelled; when the capacities of our souls shall be infinitely enlarged, and perfect knowledge shall be consummated in perfect glory.

^{*} Locke on the Human Understanding, Book i. Chap. 1.

Such, then, appear to be the prevailing causes of a Sceptical tendency in the mind; others, indeed, might be enumerated, but into one of these four leading principles they may all be ultimately resolved. When, therefore, the Sceptic accuses the believer of prejudice, it would be well for him to examine the state of his own understanding and heart, and to see whether the accusation does not recoil upon himself. If one or more of these principles have any decided influence upon his mind, he is unable to exercise a free and unbiassed judgment—he does not believe, because his mind is incapable of belief.

CHAPTER IV.

Supposed Prevalence of Scepticism among Men of Science, especially among those of the Medical Profession.

To those who have studied natural philosophy as a part of general knowledge, it has constantly afforded the most overwhelming proofs of the existence of a creating and superintending Providence. To whatever department of the vast system around them they turn, they find in it such uniform and invariable marks of design, increasing upon them from every quarter, that they consider it in the highest degree irrational to doubt the existence of the designer. From the creature they rise to the Creator, from the governed to the Governor, from the world to its God.

It is a common remark, however, that among men of eminence in the particular branches of science, Scepticism prevails to a very considerable extent. This observation is by no means a just one, nor should the errors of a few, be visited upon the whole. From the days of Newton down to the present times, the firmest believers and the ablest defenders of the Christian faith, have been found among those, who

have stood foremost in the ranks of science and of natural philosophy.

To this representation, the French school of natural philosophy constitutes a lamentable exception. The rank which D'Alembert so deservedly held in mathematical science, gave him such an influence over the philosophers of his day, as enabled him to enlist all their talents and exertions in the cause of infidelity. Every nerve was strained to bring the various branches of natural philosophy into the field against religion; anatomy, geology, and astronomy, were all pressed into the service, to throw some discredit or other against the sacred cause. The Revolution, which the diffusion of these wretched principles so indisputably caused, served only to propagate and to perpetuate the contagion. A volume, lately published, by Sir T. C. Morgan, which will be more fully noticed in the ensuing chapter, may be considered as an echo of the opinions of the French school; and it presents us with a sad document, if such documents, indeed, were wanting, of the absolute rejection of all religious principle, by the principal philosophers and literati of Paris. But though the examples of such emiment men must have a considerable influence over the public mind, yet if we examine the matter of fact, we shall find, that these philosophers are not the leaders, but the followers only, of the long and general apostacy of their country. It is not their science which has affected their belief, but it is their preyious infidelity which has tainted their science.

The pursuits of natural philosophy are not, however, without their danger, not indeed as they enlarge, but as they contract the mind, and as they in dispose it to the candid reception of moral evidence. Independent of the effects which have been described in the last chapter, there are other habits, which if they are not guarded against with due precaution, may grow upon the mind of the man of science, and, by degrees, diminish the influence of religious belief. Having been long accustomed to account for the phænomena around him from the agency of secondary causes, his contemplation is gradually withdrawn from the first great Cause of all things. He traces the wind and the storm to the operations of the electric fluid, he accounts for all these awful convulsions of the elements from philosophical causes, till he is unwilling to join in the juster notions of unlettered ignorance, and to acknowledge, that "it is the glorious God which " maketh the thunder." By associating, again, real events with fictitious terms, he is often tempted to ascribe to the latter, a certain mysterious influence, which practically invalidates the existence of a higher power. In all his researches into the phænomena of the world around him, and the laws by which they are regulated, the philosopher directs his attention so exclusively to what he terms Nature, and the operations of Nature, that he at last begins to attribute to this delusive term, an actual existence, and to ascribe to a word only and a shadow,

what he ought to ascribe to the being and to the agency of God. The word Nature is, certainly, a very convenient term for expressing the uniform action of the first Almighty cause, according to certain laws, which in his wisdom he has enacted—but when by frequent repetition, we lose sight of the real meaning of the term, or by associating it with the phænomena around us, we begin to give it an actual existence, then it is that we are encouraging the growth of a Sceptical principle in the mind By substituting in our speculations, Nature for God, we keep out of sight the Creator and the Governor of the universe, till we finally doubt the reality of his Providence and of his power.

The medical profession has been very frequently, but very unjustly, charged with a general tendency to infidelity. Among those who have dedicated their talents to the cultivation and practice of this branch of natural philosophy, the proportion of those who are Sceptically inclined, may be rather greater than in any other department; but never let it be forgotten that, in other countries as well as in our own, the men who have united the most consummate skill in their profession with the most enlarged and cultivated understandings, have ever been, and still continue to be among the first to acknowledge themselves sincere and humble Christians. No living physiologist will contest the palm of science with the profound and sagacious Haller; yet Haller was not only a believer, but an advocate in the cause of

Christianity. The name of Mead is still pre-eminent in the annals of English medicine; yet Mead no less than Haller wrote in defence of religion. If names of celebrity, indeed, were wanting, such a list might be adduced, as in point of authority alone, would shame the propagators of medical infidelity.

It might, perhaps, be expected, that the very process of a medical education would, of itself, furnish such irresistible proofs of a superintending Providence, as must work in the mind of any rational man, a firm conviction and an increasing faith. Let a man of education go into a dissectingroom, for the first time: how will his mind be overpowered with a feeling of indescribable admiration and awe-how will the intricacy, the variety of structure-the connexion and the correspondence of every, even the minutest part, with the grand end and purpose of the whole, proclaim in language, which cannot be misunderstood, the immediate work and wisdom of God. The scenes, again, of misery, pain, and death, which a professional man is so often called upon to witness, would produce, it might be imagined, that deep and awful sense of religion in the soul, which in the hurry and dissipation of the world, is too often neglected or forgotten. In other lines of life, religion is to be sought for from without, in the medical profession it appears to be almost forced upon the soul.

But the clearest evidence does not always produce, either the readiest, or the most permanent con-

viction. Frequent repetitions of the same circumstances and events, however grand or alarming they may be, have a strong tendency to diminish their influence on the mind. The inhabitants of the most romantic countries in the universe, are generally the least sensible of the magnificence of the scenery by which they are surrounded. And so much does custom disarm all danger of its terror, that in the latter period of a long siege, the soldiery will often, from pure insensibility, expose themselves, without the call of any military duty, to the fire of the enemy. It is from the action of this principle, that the medical student is rapidly hardened against those impressions of religious awe, which stamp themselves with such force upon the mind of a stranger. The spectacles of mortality which he daily witnesses, lose their terrific character, and become matters of course. From the power, again, which he possesses over the human frame, and over the operations of secondary causes, which by his professional skill he is enabled to influence, he is often in danger of losing every idea of the first great Cause of all things. "I trust in " Providence," said the patient to his surgeon. " You " had better trust in me," was the surgeon's reply. " Providence will never cure you, but I can." Yet the wounded man saw much more deeply into the real state of things than his wiser surgeon-for he saw, that the surgeon himself was an instrument only in the hands of God, whose government controlls, and

whose Providence protects us through the agency of secondary causes.

Much, however, of the infidelity which we find in the practitioners of medicine, is to be attributed to another cause. Of those, who are destined to fill the ordinary branches of the profession, few have ever received any intellectual education at all. At the age of fourteen, all general instruction is usually concluded, and their views are unceasingly directed to the study and practice of their future profession. The superiority which young men feel, from an early initiation into the mysteries of a science, so important in its object, and so general in its application, naturally enough engenders that self-opinion, which is the surest obstacle to any advancement in the paths of general knowledge. Forgetting, as we have seen, the existence of a first Cause, they would account for all the phænomena which they witness, from the action of secondary causes only; and consequently the more accurately they observe, and the more deeply they investigate, the more surely they puzzle and perplex their understandings; till, at last, their embarrassments conclude in a state of general Scepticism. Independently, again, of the natural pruriency of a young and undisciplined mind towards universal doubt, the student finds that religious Scepticism is especially adapted to a course of sensual indulgence, and practical profligacy. Infidelity is a very easy casuist; it teaches him, that Man is his

own master; responsible neither to his Maker-who is nobody; nor to his soul-which is nothing.

There is not, perhaps, a more melancholy spectacle to a feeling mind, than an active, intelligent, and generous youth, launched out into the troubled ocean of life, without one star from above to cheer or to direct his way. If his profession be that whose peculiar province it is to alleviate the sufferings of our frail and perishable frame, we cannot but lament more deeply still the fate of one, who with all the talent of extending relief and comfort to others, is yet without the power of administering peace and consolation to himself.

If there be a thought, which in the hour of impending dissolution must agonize and distract even the most hardened infidel, it is the remembrance of having been the instrument of perplexing the understandings, destroying the hopes, and corrupting the morals of the young men committed to his charge. At that very age, when every motive which religion can supply, is so imperiously called for, to check the rising passions, and to subdue them into a state of rational and permanent restraint, it is an offence no less against social, than individual happiness, to inculcate those principles, which set all conscience and morality at defiance. The man who will coldly and laboriously teach the lessons of infidelity, will not scruple to excuse, if not to inculcate the practice of immorality; and he who will confound the distinctions between truth and falsehood in speculation, will annihilate the boundaries between virtue and vice in practice. Nor will the mischief stop here, nor confine itself to those, who have been the more immediate victims of his delusion. Infidelity, like every other pestilence, is propagated by contagion. In whatever provincial town these young men may settle, they will find but too many of their own rank and age, who will become ready converts to a principle, which while it flatters their understanding, corrupts and indulges their heart.

I am at a loss to imagine, what worthy end, or even what plausible excuse, a teacher can propose to himself, for the propagation of opinions, which unsettle and distract the mind, destroy every good and moral feeling, and deprive their victims of all comfort in the day of affliction, of all hope on the bed of death. Will either the principles, or the practices of the Gospel, render the student less ardent in the pursuit of knowledge, or less active in the duties of his profession? Will it exclude any one light of philosophy, any one ray of science from his mind? Will it make him less tender in his manners, less kind in his actions, especially to the poor and the friendless? Will it not rather give him a power over the mind as well as over the body of his patient; so that while he relieves the sufferings of the outward frame, he may speak in the language of peace and of comfort to the soul?

What are the motives of those, who would take advantage, both of the ignorance and of the pas-

sions of those whom they address, and teach them through the medium of the most paltry sophistry, to trample upon all religious and moral restraint, I leave for themselves to determine. It is not to the motives of the teachers, but to the consequences of the doctrines, that I would draw the attention of the public.

While I am upon this part of my subject, I should do justice neither to the merits of the individual, nor to those of the profession which he adorns, did I not notice the spirited stand which Mr. Abernethy has made against the advances of these fatal principles, in his last Physiological Letters. They are published, and I trust they will be universally read, as doing equal honour to his own good feeling, and to the Chair of the Royal College of Surgeons, from which they were delivered. It will be heard also with much satisfaction, that another animated protest against these opinions, was delivered in a closing lecture, at one of the most celebrated schools of anatomy in the metropolis, by that eminent physiologist and very rising surgeon, Mr. Charles Bell. It is to be hoped, that the voices of such men will have their due influence on the minds of a large portion, at least, of the younger part of the medical profession.

Of the peculiar channels in which the principles of infidelity are disseminated, I shall speak at large in the ensuing chapters.

CHAPTER V.

Mistaken Notions of Life and Organization— Views of M. Bichat—of Sir T. C. Morgan—of Mr. Lawrence.

THE great aim of the French physiologists, and their followers. is to impress upon the mind an erroneous notion of LIFE, and to represent it as entirely dependent upon organization for its continuance. If this doctrine be once admitted, the immortality of the soul, and with it every thing that distinguishes man from the grass upon which he treads, is utterly annihilated. This process is carried on, not by any immediate objections to the existence of the soul in a separate state, or to the certainty of a future world, for such an open attempt to subvert the foundations of all religious belief would be resisted not only by the arguments of their opponents, but even by the early prejudices, as they would probably term them, of their uninstructed readers. The method which they pursue is of a more dangerous, because it is of a more subtle nature. They steal into the mind under the garb of acknowledged truth and undisputed fact,

and thus they possess themselves of the citadel, before even a suspicion arises of their treacherous design. Their researches into the natural world are deep and curious, their facts are interesting, their style is animated, their arrangement is good, and thus one of the main designs of the whole work, the propagation of Scepticism, is covered under the outward shew of much accurate and much instructive knowledge. They will not, indeed, falsify fact, but they will omit a very important part of the truth, and then arguing upon what remains, they deduce, or rather they lead their readers to deduce, the inferences which they desire.

M. Bichat is a writer of this class. In his Recherches sur la vie et la mort, he has brought together a very considerable number of interesting, important, and well-arranged facts, respecting the origin, the existence, and the dissolution of bodily life. Having thus established a claim to the attention and the respect of his readers, he proceeds to state some few circumstances respecting the passions and the properties of the mind, tracing them as far as they are connected with the bodily organs, but losing sight of all that is beyond. Thus artfully interweaving the mind with the body, he follows them through life, and connects them in death. The physiological accuracy with which he details every circumstance attending the dissolution of the body, prevents the young and unwary reader from observing the fallacies, and detecting the omissions.

Following the sensations of the external body to

the brain, without any sort of ceremony, he constitutes that organ the origin of perception; he speaks of its "education," and considers the memory and the imagination as dependent upon its action. As a specimen of the happy union of physiology and morals in the writings of M. Bichat, the following passage may be selected. It occurs in the work before mentioned, p. 121, and for the benefit of the English readers, it is translated in the Encyclopædia of Dr. Rees. Article Life.

" Such, then," concludes Bichat, " is the leading " difference of the two lives, in respect to the degree " of perfection of the various systems or functions of " which each consists: in the animal the predominance " or inferiority of one system arises from the greater " activity or indolence of that system; in the organic " the original conformation is the cause. Hence, " the physical temperament, and the moral charac-" ter cannot be changed by education, which has so " vast an effect in modifying the animal life. The " character, if I may use the expression, is the " physiognomy of the passions; the temperament is " that of the internal functions: as both are con-" stantly the same, and not influenced by habit and " exercise, they cannot be affected by education. "That may, indeed, bestow such perfection on the " judgment and reflection, as to make them more " powerful than the passions: it may fortify the " animal life, and make it superior to the impulses " of the organic. But to attempt altering the cha-" racter, softening or exalting the passions, of which

"it is the habitual expression, or enlarging, or con"tracting their sphere, would be an enterprise
"analogous to that of permanently raising or di"minishing the extraordinary force of the heart, or
"accelerating or retarding the motions of the arte"ries in the state of health. We should inform any
person who entertained the latter project, that cir"culation and respiration are not under the influence
"of the will, and cannot therefore be modified by
"the individual, without the occurrence of disease.
"The same observation will apply to those who
"think they can change the character, and consequently the passions, since the latter are the pro"duce of the actions of all the internal organs, or at
"least are especially seated in them,"

M. Bichat had told us before, that life was divided into organic and animal, the one common to vegetables and animals, the other peculiar to the latter. "The functions, of the animal," says he, "form two very distinct classes. The one of these consists of an habitual succession of assimilation and excretion, by which it constantly transforms into its own substance the particles of adjoining bodies, and then rejects them when they become offensive. By this class of functions he lives only within him-self; by the other he exists without himself, and is an inhabitant of the world, and not like a vegetable of the spot where he was born. By this latter class he feels and perceives surrounding objects, he reflects upon his sensations, he has the

"and can generally communicate by his voice his desires and his fears, his pleasures or his pains. "I call," continues M. Bichat, "the assemblage of the functions of the first class 'organic life,' because all organized beings, whether vegetables or animals, enjoy it in a more or less marked degree, and because organic structure is the only condition necessary for its exercise. The assembled functions of the second class form the animal life, so termed, because it is the exclusive privilege of the animal kingdom."

Now let these two passages be carefully compared. In the former, M. Bichat tells us that the passions are organic impulses, or the produce of the actions of the internal organs. In the latter, he represents organic life as the assemblage of those functions which the animal has in common with the vegetable. Thus then, according to M. Bichat, a cabbage and a man having the functions of organic life in common, and the passions being among those functions, it follows that jealousy, anger, revenge, and love, are the common affections of the man and the cabbage. It will be seen at a glance that the fallacy consists in omitting to distinguish those passions, such as jealousy, anger, &c. which have their origin and gratification entirely in the mind, from those of sensuality, &c. which require the instrumentality of the outward organs.

In the former passage again, while he attempts to

shew that the passions are the results of our material organization, he tells us that the passions cannot be softened, nor their sphere contracted, because they are not under the influence of the will. But two sentences before, he asserted that education may bestow such perfection on the judgment and reflection as to make them more powerful than the passions. Now the very exercise of this superior power of judgment and reflection must ultimately depend upon the will, as every man's self-experience will inform him: and if the impulses of the passions are thus subdued, it can only be by restraint; and where there is restraint, the sphere must be virtually contracted. As far, therefore, as the theory of M. Bichat is intelligible, it contains within itself a gross contradiction.

To such paltry sophistry, and such palpable absurdities, are men of the highest professional eminence reduced, when they would annihilate that first, that noblest gift of God to man—the immortal soul. The physiological labours of M. Bichat reflect the highest credit both upon his sagacity and his industry, and may justly be considered as forming a sort of text-book for every student in that department of science. But when he would mix up atheism and materialism with the mass, he falls into those errors and contradictions, of which any rational mind might justly be ashamed: yet these when bolstered up by physiological facts, not only pass without

detection, but are hailed as the signals of an original, and an enlightened understanding.

The morality which these views of life inculcate, is without doubt exceedingly convenient. It will be a very satisfactory piece of intelligence for the young student, that all attempts to soften and exalt the passions are useless. This is a philosophical lesson which he will but too readily imbibe, and too faithfully retain—even though it should be contradicted by its author in his next sentence.

The great end of M. Bichat is, as has been before observed, to involve the body and the soul, the material and the thinking principle, in one common destruction. It is with this view that his celebrated definition of life was framed. "Life," says he, " is " the assemblage of those functions which resist " death." La vie est l'ensemble des functions qui résistent à la mort. Now if we prune this definition of its wordy excrescences, we shall find that it is in reality no definition at all. It neither describes the known properties of life, nor distinguishes them from those of any other subject. In the first place, the idea of death which it presents to the mind, is absolutely false. In the common language of the world, we may speak of a resistance to death, but in the stricter language of physiological definition the notion is wholly inadmissible. Death is nothing more than the absence or the cessation of life. M. Bichat himself, in that part of his work which treats upon the

subject of death, has uniformly represented it as such. "Resistance of death," means nothing therefore but "the preservation of life." Life then is the assemblage of those functions which preserve itself. This definition therefore of M. Bichat, is nothing more than a complicated mode of expressing the indisputable truth, that the whole is the assemblage of its parts; or in other words, that "life is life."

Not more successful is the definition of life, as it appears in a work lately published, entitled Sketches of the Philosophy of Life, by Sir T. C. Morgan, a Fellow of the Royal College of Physicians .- "The sum total of functions, which any individual can perform, constitutes its life." Thus then life is not the cause, but the effect. Life is the sum total of secretion, locomotion, volition, and other functions which any individual is able to perform; but in what consists the ability of performance, the author has not informed us. Sir T. C. Morgan appears to have been unwilling exactly to adopt the definition of M. Bichat, he has therefore made such additions to it, as have rendered it inapplicable to the subject. Sir T. C. Morgan seems in most other points to have carried the notions of Bichat to their fullest extent. "Good and evil," says he, "are principles " intelligible only as they relate to the laws of " organic existence."

All our ideas of reflection are produced, according to this author, by external impact. "As far there"fore, at least, as ideas are the subjects of human

" contemplation, they must be regarded as changes " impressed upon the substance of the brain, by the " impact of bodies that are external to its tissue." P. 280.

Really the vibrations of Hartley were but powerless instruments, when compared with the *impact* of this new philosopher. To the same sort of action and re-action, the passions and the habits are afterwards ascribed. There is however a certain consistency in the philosophy of this author, which is highly praiseworthy. As all the ideas of reflection, the passions and the habits, are produced by material impact, Sir T. C. Morgan prescribes the same means, only in a higher degree, for their abatement or controul.

"When habits of action are once formed, they are rarely broken down by the suggestions of such motives as arise under the influence of other passions. A violent sensible impression is much more influential. Thus an unlucky blow, inflicted during a paroxysm of rage, is more likely to subdue a tendency to that passion, than the best arguments which reason can suggest." P. 310.

The reader will observe, that it is not to the feeling of shame, of humiliation, or of reflection, which either the blow, or the pain which it causes, may excite, that its beneficial effects are to be ascribed; but it is the actual impact upon the skull, which subdues the tendency of every bad and rebellious passion. Nor is it necessary that the blow should be struck in anger, or inflicted in punishment; for, according to

the ratio baculina of our author, it may be given and received in mutual good humour, without any detriment to its expected consequences.

After having thus accounted for the ideas, the passions, and the habits, upon the principle of organic action, and having denied the influence of the will upon them, Sir T. C. Morgan just mentions the existence of what he terms a theological soul, but what are its properties or powers he has not informed us. Though the principles of Sir T. C. Morgan's book are those of Bichat, Cabanis, and others of the French school, yet the reader, from the specimens which he has seen, will be probably of opinion, that no great danger is to be apprehended from their publication. He appears indeed equally happy in his physiological speculations and in his classical allusions, though with much modesty he remarks,

"Scylla and Charybdis have yawned upon his "track, and he has probably been often immerged in both vortices." P. 22.

Leaving the sketches of Sir T. C. Morgan to their fate, it is my wish to draw the more serious attention of the reader to a book of some importance among the students in physiology, I mean, to the Introductory Lectures of Mr. Lawrence. This gentleman stands upon high ground as a surgeon and an anatomist, and from the professional eminence which he has so deservedly attained, he must naturally be regarded by the younger medical students with admiration and respect. The volume of Mr. Lawrence

does not appear as the work of a private individual, but as the production of a Professor in the Royal College of Surgeons, recited in their school and sanctioned by their authority. As such it is in the hands of every student in the metropolis, and as I have lately understood, it has had its full share in the formation of their opinions. In this volume Mr. Lawrence has plainly told his hearers that medullary matter is capable of sensation and thought *- that there is no independent living principle superadded to the structure of animal bodies—that life is the result of organization. As these doctrines are not his own, but only compiled and translated from others, Mr. Lawrence is probably little aware that they lead to the very worst conclusions. Materialism and Atheism go hand in hand; they were united as early as the days of the old Ionic school, and the partnership will not be dissolved, even to its latest posterity. For when once we have argued ourselves out of the existence of our soul, which is a spirit, by the very same process we argue ourselves out of the existence of the Almighty, who is a spirit also. I cannot suppose that Mr. Lawrence is infected himself, much less that he would be desirous of infecting the unwary youth committed to his charge, with principles subversive of all private happiness, all social morality. As an honest man he would shudder at the accusation. From an admiration perhaps of the professional attainments of the French physiologists, Mr. Lawrence has incautiously admitted some of their most dangerous tenets. They lie but as seeds scattered throughout his volume, but it is too surely to be apprehended, that in the minds of his pupils they will spring up to a destructive harvest. The mode of reasoning indeed, which Mr. Lawrence has adopted, is the best argument in his favour, as from the very perplexity and confusion which he discovers in all his notions upon the subject of organization and life, it is evident that he cannot have made up his mind upon the subject. And for this cause, no improper conclusions could be legitimately drawn from the work, because such is the mode of his reasoning, that it is impossible to conclude at all. In part however it might be converted into infidelity, by those who from their imperfect education might mistake assertions for proof, obscurity for depth, and perplexity for argument.

The following is the view of the subject which Mr. Lawrence has taken.

"Organization means the peculiar composition which distinguishes living bodies; in this point of view they are contrasted with inorganic, inert, or dead bodies. Vital properties, such as sensibility, irritability, are the means by which organization is capable of executing its powers; the vital properties of living bodies correspond to the physical properties of inorganic bodies; such as cohesion, elasticity, &c. Functions are the purposes which

"any organ or system of organs executes in the animal frame, there is of course nothing corresponding to them in inorganic matter. Life is the assemblage of all the functions, and the general result of their exercise. Thus organization, vital properties, functions, and life, are expressions related to each other, in which organization is the instrument, vital properties the acting power, function the mode of action, and life the result." P. 120.

So then we have an instrument, an acting power, a mode of action, and a result. All this is very intelligible. Organization then is the instrument which produces life as its result. But in the first sentence Mr. Lawrence informs us, that organization " is the " peculiar composition which distinguishes living " bodies, as contrasted with inorganic or dead " bodies." Here then it appears, that life so far from being the "result," is in fact "a component " part" of the said instrument, and that so far from life being the consequence or result of organization, that no organization can exist without it. So according to Mr. Lawrence, "life is the result of the pecu-" liar composition which distinguishes living bodies," or in other words, we first take for granted the existence of life, and then we prove it to result from its own existence. This is a sort of logic which cannot surely be allowed. "Life," again says Mr. Lawrence, " is the assemblage of all the functions, and "general result of their exercise." Just now he made the result co-existing with the instrument of its production, and now he makes it the same with the mode of action, or in other words, with the mode of producing it.

Let us take Mr. Lawrence upon his own ground, a scalpel is the instrument, a hand the acting power, cutting the mode of action, and a wound the result. What would Mr. Lawrence say to the man who should assert, that the wound was co-existent with the scalpel, or again, that the act of cutting was a wound?

After all this, in the very next page Mr. Lawrence informs us, that the vital properties or forces animate living matter, so long as it continues alive. Or in other words, that they animate (or give life to) matter which has life, so long as it continues to have life.

First then we were told that organization was the instrument, and life the result; we were then told, the organization and life were co-existent; and now we are told,

"The result of all these enquiries I have no hesi"tation in affirming to be, that no connection has
been established in any one case between the
"organic texture and its vital power." P. 143.

Now all this perplexity and contradiction does not arise from the nature of the subject. If we would be content to abandon hypotheses, and to consider the phænomena which are hourly presented to our view, the way would be plain before us. To observe cer-

tain operations, and to trace them upwards to their secondary cause, is a rational and a satisfactory task. But when we would account for the mode of operation, and unfold the nature of the cause itself, we go beyond the reach of our faculties, and all is mystery and confusion. From certain experiments, we are enabled to infer the existence of gravity, and to calculate its laws; but how it operates, and in what manner it exists, we must be satisfied to remain in ignorance.

In our researches therefore into the laws and the properties of life, let it be our endeavour, first to observe, and then to arrange the facts, and afterwards to draw such inferences as the laws of right reason will permit. Much will indeed remain unexplained, but nothing will be either contradictory or confused. The knowledge which we shall thus attain, though narrow will be certain; and perhaps we may find, that when we have rejected that style of reasoning which I have attempted to expose, we shall also reject the Sceptical notions and the Atheistical views, which such a style will uniformly encourage.

CHAPTER VI.

Life—its Definition—In what Respects living Substances differ from dead—The distinct Phænomena of Life, in the Vegetable, the Animal, and the Human Creation.

THE distinguishing character of all living creatures, from the highest to the lowest, being active existence, we may therefore define life to be "Inhe-" rent activity." A stone and a tree equally exist, but the former will remain for ever passive and unmoved, excepting by external force; the latter has an inherent activity, which causes motion in its parts, without any external agency. External circumstances may indeed call forth these active powers, from a state of previous suspension; but no external circumstances can give them existence. The activity of a living substance is an inherent and an independent quality; it may be destroyed, but cannot be imparted either by material impulse or by chemical agency. The ground in which it is sown does not infuse a vegetating activity into the seed, it only brings into

motion those inherent powers which existed, and still continued to exist, though temporarily dormant. The chemical agencies of heat, moisture, &c. do not act upon a living substance, in the same manner as upon inert matter. All changes which chemical agencies produce upon inert matter, consist entirely in the new disposition of its constituent parts: but when by these external influences a seed is made to vegetate, the new disposition of its parts is a consequence of other principles, of absorption, secretion, and nutrition. These arise from its inherent activity, and are not dependent upon any chemical powers, strictly so called; for both the mode of action and the product is different from what would be the result of chemical agency alone. An inert body increases in magnitude only by the accretion of fresh matter to the surface. A living body grows by the developement from within, arising from the conversion and assimilation of extraneous substances to those of its own frame. Nor is this simply the accretion of external matter to the vegetable body; but a change is wrought in the moment of assimilation.

The temporary suspension of active powers does not by any means invalidate the existence of life. The existence of a power is one thing, the exercise of it is another. As long as the inherent activity may be recalled or restored, that substance is justly considered as alive. The grain of corn is a living substance, though it shews no more signs of internal activity than a pebble; because that activity, though suspended for a time, is capable of restoration. The

conclusions to be drawn from this consideration are of a very important nature, as will hereafter be shewn.

This inherent activity, though it be the universal character of all living substances, will be found to vary very considerably both in degree and in effect. In the vegetable world it is exercised in little more than in the circulation of fluids, in the appropriation of nutriment, and in the reproduction of its kind. The plant has the power of absorbing a certain moisture from the earth, and of converting it into a nutritive fluid. In the ascent and return of sap, we trace a simple but a very perfect circulation; in the secretion again of juices, and in the reproduction of its kind, we discover phænomena very nearly resembling those of the animal economy. In the power also which it possesses of repairing either structure which has been injured, or parts which have been destroyed, the activity of the plant is peculiarly displayed. It may here be incidentally remarked, that this power of ready restoration, appears to be most vigorous in the lower orders of the creation. The most inert and most defenceless beings, would seem to be endued with the readiest means of repairing those external injuries, to which, from their situations, they are the most exposed. The tree will reproduce its branch, the lobster its claw, while equal losses in the dog, the horse, and the man, are beyond the powers of restoration. It should, lastly, be observed of plants, that their inherent activity

enables them to resist those chemical agencies, to which, after that activity has ceased to exist, they readily yield. While the tree is alive, the atmosphere has little or no effect in rotting the bark, but when it dies, the bark, the fibres, and the roots decay by the external action of the air, in the same manner as the dead body yields to those chemical agencies which the living body was enabled to resist. We have a curious instance, indeed, of this, in the effect of cold on the living and on the dead body. The living will resist the action of congelation, while the dead will be split by the freezing of its juices.

As we ascend in the scale of the creation, the phænomena of active existence increase upon our notice. It has been remarked, that the first process which distinguishes the animal from the vegetable, is digestion, and that this peculiar characteristic is observable even in the lowest degrees of the animal creation. From the process of digestion we are led upwards to the consideration of the nervous system, of irritability, contractility, and other phænomena which accompany animal life. Some, however, of these properties, such as digestion, respiration, &c. though they are peculiar to the higher order of the creation, are, in themselves, nothing more than the extension of those which we observe in vegetable. It is not because the animal has a nervous system, that it is therefore essentially distinguished from the vegetable, but it is because there is a higher princi-

ple in its nature, of which this system is the instrument. The real distinction between the animal and the vegetable creation, is the enjoyment of volition. Even in the lowest classes of animals this faculty is apparent, though in the least possible degree. It is this which gives them the powers of locomotion, I mean, of that active locomotion, which depends neither upon material impulse, nor upon chemical agency. The smallest animalcule, whose movements we trace with a microscope, has a species of activity in its existence, of which the noblest tree in the forest is not a partaker. A vegetable has the power of a relative motion only in its parts, but an animal can change the absolute position of the whole. Leaving, however, these and other diminutive creatures, of which the most acute physiologist is unable to form any fair or accurate judgment, and taking those which fall more properly within the range of our observation, we shall find that volition, in a greater or a less degree, is their distinguishing endowment. In the oyster, for instance, it appears but in a very inferior proportion; yet small as it is, the principles which cause an oyster to close upon a knife, and a tree to close upon a wedge, are as distinct as any two principles can possibly be.

This principle of active existence we trace through all the gradations of the animal world. In the lowest classes, it appears in little more than in the blindest instinct; in the higher it rises into sagacity, docility, memory, and even into a species of

practical judgment. But active as this principle of volition may be, it is nevertheless bounded by the strictest limits. The sphere of the most sagacious animal is contracted by certain laws, which it instinctively obeys; for instinct, not reason is the guide of all its actions. This instinct is an innate principle of animal life, it is neither dependent on experience, nor derived from observation. An animal separated immediately after its birth, from all communication with its kind, will yet perform every act peculiar to its species, in the same manner, and with the same precision, as if it had regularly copied their example, and been instructed by their society. animal is guided and governed by this principle alone, by this all its powers are limited, and to this all its actions are to be ultimately referred. An animal can discover nothing new, it can lose nothing old. The beaver constructs its habitations, the sparrow its nest, the bee its comb, neither better nor worse than they did five thousand years ago. Even if an animal of extraordinary docility is taught by the agency of man, any new qualification, it cannot of itself impart it either to its posterity, or to its kind. But though confined within so narrow a sphere, this active principle of volition is of such power and importance, as to lead some men to conclusions respecting its duration, which will be noticed in their proper place.

In proportion to the degree of volition, we perceive an improvement also in the structure. In the inferior animals, the sphere of whose being is con-

tracted, and the purposes which they have to execute but few, we discover a proportionate deficiency in every part of the system. The polypus, which may be considered as a being in the lowest state of animal existence, appears to possess little more than the power of digestion, and contractility. Richerand would argue from thence, "that its spontaneous " movements do not suppose any more than those in " a mimosa, reflection and will." But, surely, his inference, in this respect, is an unfair one. The polypus has the organs of digestion, which are never to be found in the vegetable, but are peculiar only to the animal; we must conclude, therefore, that the polypus is an animal. But if in every animal, as far as we can trace their connection, we refer spontaneous movement to volition, we should justly argue that the same cause produces the same effect, even though our observation cannot supply the link which unites them. Besides, as there are such very few instances, of a vegetable possessing the contractile power, we should, primâ facie, refer the phænomenon to animal existence, especially if the motion is of such a nature, as to resemble that which is peculiar to the animal world. Indeed, one of the great distinctions between the animal and the vegetable, as far as respects nutrition, is, that the animal is nourished by internal absorption, through the medium of a stomach; the vegetable by external. The animal again performs a process of conversion, or digestion, before the fluid is admitted into its vessels; the

vegetable performs a similar change in the vessels themselves without any previous digestion. Lastly, the animal appears to derive positive nutrition only from organized matter, or rather from that which has previously been alive; while the vegetable draws the supply from earth and other unorganized substances.

As the purposes of existence are multiplied, the number also of the instruments are increased, and the whole machine is enlarged, till we arrive at that perfection of the nervous system, which we trace in the horse, the dog, and other superior animals.

Following the gradations of life, we rise at last to its highest degree in man. In the beauty of his structure, in the combination of his parts, in the variety of his powers, there is a perfection, which clearly designates him as a being formed for dominion over the surrounding world. It is not, indeed, in any particular part that man is superior to the remainder of the creation, for there is scarcely a single faculty of the body, in which he is not surpassed by some one animal or another. He is inferior to the deer in swiftness, to the dog in scent, to almost all the larger animals in muscular strength: it is from the combination, and the aggregate of all these faculties together, that he derives his superiority. But these bodily faculties, however united, would avail him but little, were they not accompanied and directed by a power, not only surpassing in its degree, but differing in its province from any faculty of the animal creation. It is from the powers

of his mind, not from those of his frame, that man derives his pre-eminence. The understanding is the principle which distinguishes and adorns the life of man, and superadded to the powers which exist in the life of plants and animals, raises him to a species of existence, higher in rank, wider in extent. The plant and the animal are partakers only in a common world without, man has a world within himself; he has that inherent activity, which carries him in a moment backwards to the past, onwards to the future; he has imagination to create, reason to compare, and judgment to distribute ideas and propositions to an indefinite exent. It is this combination of active powers, peculiar to himself, which gives superiority and effect to those which he enjoys in common with the animal and the vegetable creation. If we compare these active powers of the human understanding, with the volition of an animal, we shall find that they lead to the most important consequences. An animal may remember the past, when external objects recall it to the mind, but an animal has no power of reflecting upon it from the suggestions of its own mind. This circumstance alone forms one of the most striking distinctions between the two creations, as it proves the animal destitute of that leading quality, which marks the human understanding, MORAL RESPONSIBILITY.

A dog may reasonably be corrected for an act, so long as the traces of it remain in sufficient number to bring it again to his remembrance. But no

man would think of punishing a dog for an offence committed four-and-twenty hours since, especially if every sensible mark of the act had been removed. A man, on the contrary, is punishable for a crime after the lapse of years, long after every trace of the offence has faded away; and even if he should escape the lash of public justice, his guilt will remain undiminished. His conscience will take cognizance of the act, and by a power of reflection, to which an animal is wholly insensible, will continue to inflict upon the offender, the most severe and lasting punishment. It would be useless to enumerate all the various points, in which the understanding of a man is superior to the volition of an animal, as they are the objects of our daily observation and experience. Enough has been said to shew, that the powers of human understanding constitute a new and distinct principle of life.

Thus, then it appears, that in the inherent activity, or life of the vegetable, the animal, and the human creation, there are three degrees distinct in themselves. In the vegetable, we observe the faculty of involuntary motion; in the animal, we see this involuntary motion combined with a power of volition; in man, we recognise both these faculties crowned with the predominant principle of the understanding. The first of these I would call, the life of vegetation—the second, the life of volition—and the third, the life of the understanding.

CHAPTER VII.

The Origin of Life—False Notions of Organization
—What Portion of the Life of Man is affected
by Death.

AFTER observing the various phænomena of life, in the vegetable, animal, and human creation, we shall naturally be induced, to enquire into their origin. Upon this point all the researches we can make, will lead us to the knowledge of these two circumstances only.

- 1. That every substance endowed with inherent activity, is endowed also with the means of producing its kind, and of imparting to these productions, the activity which itself possesses.
- 2. That life can be communicated by no other means, than through a living substance, portioning off as it were a part of itself to be the receptacle of a new active existence.

In its origin, therefore, no less than in its phænomena, is inherent activity distinct from mechanical motion. In the communications of mechanical motion, we know the mode in which it is produced, and

can fix upon the moment in which it is imparted, we can trace its progress, and calculate its velocity. In the communication of life we can discover neither the time, nor the manner of its production; we only know that under certain circumstances, we shall find it produced.

But although the origin of it is involved in obscurity, the tenure of its existence, as far at least as appearances are concerned, is not altogether so mys-We know that its continuance depends, upon the continuance also of a certain orderly disposition of parts in its subjects. The first act of its propagation is the formation of these parts for its reception, and when it is communicated, these same parts are essential to its preservation. Consequently when the more important of these are either worn out by natural decay, or destroyed by external injury, the active existence ceases, which they were formed to maintain. This disposition of parts is termed "organization." Now as organization is a very high sounding word, it is therefore supposed by those who trust to their ears more than to their understandings, to be productive of very marvellous effects. It has been represented as the "distinguish-" ing character of living bodies, the executor of " purposes, the cause of life, and the cause of " thought." Organization is no living principle, it is no active cause. An organ is an instrument. Organization therefore is nothing more, than a system of parts so constructed and arranged, as to co-operate

to one common purpose. This orderly disposition of parts exists generally, though a particular part may be disturbed, after its subject has ceased to live. The ear is the organ of hearing, and its correspondence with the brain exists as much in the dead, as in the living body. Most of our knowledge indeed of this very organization, or arrangement of parts, and how they co-operate and mutually support each other, has been derived from our observations upon the dead subject. Organization then being nothing more than the arrangement of instruments, there must be something beyond to bring these instruments into action. Organization has been confounded with life, because without organization, life, or the continuance of active existence is not to be found; and because when organization in some particular parts is disturbed, active existence ceases. But because no musical sounds can be produced without an instrument, and because if that instrument be disordered, those musical sounds cannot be elicited, no one would argue that a flute or a trumpet is a musical sound. The instrument may still remain, though not in a state of order sufficient to produce its effect, and general organization may exist, though from a deficiency in one particular part, life has been extinguished. The rupture or disturbance of one single part, though it may put a stop to the activity, yet it does not necessarily violate the arrangement of the thousands which compose the animal body. How soon the system of organized parts may be dissolved

after the active powers of life are gone, is nothing to the purpose, it is sufficient for our argument that it exists long enough for us to observe and to trace its existence.

But as it continues to exist after life is gone, so it began to exist before life was imparted. Without entering very deeply into the system of conception. it is well known that the organs are gradually forming, and arrive at a considerable degree of perfection before they are endowed with any other than a borrowed life. Before a certain stage of its existence, the death of its parent will inevitably cause the death of the offspring, evidently shewing that its life, if it may be so called, was not its own. This is not only true in the animal but in the vegetable creation. The seeds of a plant which has been deprived of life, before they have arrived at a certain degree of maturity, will have no principle of vitality in them. Though we cannot fix upon the precise moment in which the offspring is endowed with an independent existence, it is enough for our purpose to know that there is a time, when it exists only as a part of the parent. Thus then the organization of a body commences before its own independent life, as it continues after its death. Life therefore, though it may depend upon a certain perfection in organization for its continuance, is nevertheless as totally distinct in its nature, as the sound of a trumpet is from the instrument from which it is produced.

When, however, we assert that life is dependent

upon organization for its continuance, we must consider whether we mean the simple principle of life as we discover it in the vegetable creation, or the compound principle as we recognize it in the animal and in man. We have seen that in the three great classes of the living creation, the principle of inherent activity displays itself in three different points of view; first, in the vegetation, or involuntary motion of plants, secondly, in the volition of animals, and thirdly, in the understanding of man. Thus the principle of life is single in the first, double in the second, triple in the third.

But though the distinction between the volition of an animal, and the understanding of man, is considerable as between themselves, yet as they both imply absolute power, they may be considered as branches of the same stem, when compared with motion wholly involuntary. For our present purpose, therefore, we may fairly consider them as united under the general term of thought, i. e. of the power of thinking: especially as in a subsequent section, I shall consider the only difficulties which attend their union. Taking then the life of vegetation on the one side, and the life of the understanding on the other, let us consider in what manner either of these two inherent activities are dependent upon organization for their continuance.

Daily experience teaches us that the life of vegetation depends entirely upon the organization of the body in which it resides. Whether the body be that of a plant, of an animal, or of man, when a disturbance or a demolition takes place in certain parts of its structure, we know that the loss of its active existence will follow. These parts of the organized structure upon which the existence of life depends, are those of the highest importance in our frame. The apparent causes of death in the human subject are many, the real ones but few, and as the best physiologists have shewn, may be all ultimately referred to a stoppage in the functions either of the heart, the lungs, or the brain. When the structure of any one of these three is so affected that its action ceases, the vegetating activity of the whole body ceases with it. But what reason have we to suppose that the activity of the understanding will be destroyed at the same time? The French school of physiology, and their English followers will tell us, that thought is the result of organization, and that it will therefore cease when the organized substance which produces it shall be destroyed.

If their premises are true, their conclusion must be admitted. But it is upon this important point that we take our stand, and utterly deny the possibility of thought being the result of any organization, or the produce of any material substance. We deny the assertion of Mr. Lawrence, that "medullary matter "thinks."

Before then we can prove that the inherent activity or life of the understanding perishes with the organization of the body, we must first prove that there is an identity in their existence. So far, however, from there being any identity in their existence, there is an essential dissimilarity. Thought and matter have no one point of resemblance, nor a single quality in common.

CHAPTER VIII.

Comparison of the Properties of Thought and Matter—Matter incapable of Thought—Mutual Connection and Independence of the Understanding and the Brain.

If we consider the various qualities of matter with which experiment has made us acquainted, we shall find that every one of them is inconsistent with the powers and properties of thought.

Extension is an universal quality of matter; being that cohesion and continuity of its parts by which a body occupies space. The idea of extension is gained by our external senses of sight and of touch. But thought is neither visible nor tangible, it occupies no external space, it has no contiguous nor cohering parts. A mind enlarged by education and science, a memory stored with the richest treasures of varied knowledge, occupies no more space than that of the meanest and most illiterate rustic.

In body again we find a vis inertiæ, that is, a certain quality by which it resists any change in its

present state. We know by experiment, that a body, when it has received an impulse, will persevere in a direct course and an uniform velocity, until its motion shall be either disturbed or retarded by some external power; and again, that, being at rest, it will remain so for ever, unless motion shall have been communicated to it from without. Since matter therefore necessarily resists all change of its present state, its motion and its rest are purely passive; spontaneous motion, therefore, must have some other origin. Nor is this spontaneous motion to be attributed to the simple powers of life, for we have seen that in the life of vegetation there is no spontaneous motion; the plant has no power either to remove itself out of the position in which it is fixed, or even to accelerate or retard the motion which takes place within it. Nor has man himself, in a sleep perfectly sound, the power of locomotion any more than a plant, nor any command over the various active processes which are going on within his own body. But when he is awake, he will rise from his resting-place-if mere matter, whether living or dead were concerned, he would have remained there like a plant or a stone for ever. He will walk forward-he will change his course-he will stop. Can matter, even though endowed with the life of vegetation, perform any such acts as these. Here is motion fairly begun without any external impulse, and stopped without any external obstacle. The activity of a plant, on the contrary, is neither spontaneous, nor locomotive; it

is derived in regular succession from parent substances, and it can be stopped only by external obstacles, such as the disturbance of the organization, or system of instruments with which it is combined. To assert that spontaneous motion is produced by organization, is to say, as was before observed, that a musical sound is produced by a flute; the very existence of an instrument, or system of instruments, would imply the necessity of some further power to give their intended effect. Besides, we have seen that in a sound sleep, the nerves, muscles, and all the organs of spontaneous motion have no power of producing it. A mass even of living matter requires something beyond its own powers to overcome the vis inertiæ which still distinguishes it, and to produce active and spontaneous motion.

Hardness and impenetrability are qualities of matter; but no one of common sense, without a very palpable metaphor, could ever consider them as the properties of thought.

There is another property of matter, which is, if possible, still more inconsistent with thought than any of the former, I mean its divisibility. Let us take any material substance, the brain, the heart, or any other body; which we would have endowed with thought, and enquire of what is this substance composed. It is the aggregate of an indefinite number of separable and separate parts. Now the experience of what passes within our minds will inform us, that unity is essential to a thinking being. That

consciousness which establishes the one individual being, which every man knows himself to be, cannot, without a contradiction in terms, be separated, or divided. No man can think in two separate places at the same time; nor again, is his consciousness made up of a number of separate consciousnesses; as the solidity, the colour, and motion of the whole body is made up of the distinct solidities, colours, and motions of its parts. As a thinking and a conscious being, then, man must be essentially one. As a partaker of the life of vegetation, he is separable into ten thousand different parts. If then it is the brain of a man which is conscious and thinks, his consciousness and thought must be made up of as many separate parts as there are particles in its material substance, which is contrary to common sense and experience. Whatever, therefore, our thought may be, or in whatever it may reside, it is essentially indivisible; and, therefore, wholly inconsistent with the divisibility of a material substance.

From every quality, therefore, of matter, with which we are acquainted, we shall be warranted in concluding, that without a contradiction in terms, it cannot be pronounced capable of thought. A thinking substance may be combined with a stone, a tree, or an animal body; but not one of the three can of itself become a thinking being.

What is true of one material substance, is true of every other, for all matter, whether organic or inorganic, fluid or solid, is endowed with the same

essential properties. There is one organ, however, in the human body, which calls for a more minute consideration, not from any failure in the application of the preceding arguments, but from the fallacy of many practical observations which the inexperienced are apt to make upon the phænomena which it presents. No man would ever seriously maintain, that the power of thought resided in his whole body, as the removal of various parts, without any detriment to the understanding, must immediately convince him of his error. But many a man has maintained, that the brain has the power of thought, from the conclusions which his own experience, and, perhaps, his extended knowledge of the human frame, have enabled him to draw. He has observed the action of the brain, he has watched the progress of its diseases, he has seen the close connection which exists between many of its afflictions, and the power of thought. But in this, as in most other cases, partial knowledge leads him to a more mistaken view of the matter than total ignorance. Satisfied with the correctness of his observations, he hastily proceeds to form his opinion, forgetting that it is not on the truth only, but on the whole truth, that he should rest his decision.

By an accidental blow, the scull is beaten in, the brain is pressed upon, and the patient lies without sense or feeling. No sooner is the pressure removed than the power of thought immediately returns. It is known, again, that the phænomenon of fainting

arises from a temporary deficiency of blood in the brain; the vessels collapse, and the loss of sense immediately ensues. Restore the circulation, and the sense is as instantly recovered. On the contrary, when the circulation in the brain is too rapid, and inflammation of the organ succeeds, we find that delirium, frenzy, and other disorders of the mind arise in proportion to the inflammatory action, by which they are apparently produced. It is observed, also, that when the stomach is disordered by an excess of wine, or of ardent spirits, the brain is also affected through the strong sympathies of the nervous system, the intellect is disordered, and the man has no longer a rational command over himself, or his actions. From these and other circumstances of a similar nature it is concluded, that thought is a quality or function of the brain, that it is inseparable from the organ in which it resides, and as Mr. Lawrence, after the French physiologists represents it, that " medullary matter thinks."

Now it must, certainly, be inferred from all these circumstances, that there is a close connection between the power of thinking and the brain, but it by no means follows, that they are, therefore, one and the same. Allowing, however, for a moment, the justice of the inference, from the premises which have been stated, we must remember, that we have not as yet taken in all the circumstances of the case. We have watched the body rather than the mind, and that only in a diseased state, and from this partial

and imperfect view of the subject, our conclusions have been deduced.

Let us take a healthy man in a sound sleep. He lies without sense or feeling, yet no part of his frame is diseased, nor is a single power of his life of vegetation suspended. All within his body is as active as ever. The blood circulates as regularly, and almost as rapidly, in the sleeping as in the waking subject. Digestion, secretion, nutrition, and all the functions of the life of vegetation proceed, and yet the understanding is absent. Sleep, therefore, is an affection of the mind, rather than of the body, and the refreshment which the latter receives from it, is from the suspension of its active and agitating principle. Now if thought was identified with the brain, when the former was suspended, the latter would undergo a proportionate change. Memory, imagination, perception, and all the stupendous powers of the human intellect are absent, and yet the brain is precisely the same, the same in every particle of matter, the same in every animal function. Of not a single organ is the action suspended. When, again, the man awakens, and his senses return, no change is produced by the recovery, the brain, the organs of sense, and all the material parts of his frame remain precisely in the same condition.

Dreaming may, perhaps, be adduced as an exception to this statement. But it is first to be remarked, that this affection is by no means general. There are thousands who never dream at all, and

thousands who dream only occasionally. Dreaming therefore, even though it were to be allowed as an exception, could not be admitted to invalidate the rule. And if there be a circumstance, which to any philosophic mind will clearly intimate the independency of thought upon matter, it is the phænomenon of dreaming. Perception, that faculty of the soul which unites it with the external world, is then suspended, and the avenues of sense are closed. All communication with outward objects being thus removed, the soul is transported, as it were, into a world of its own creation. There appears to be an activity in the motions, and a perfection in the faculties of the mind, when disengaged from the body, and disencumbered of its material organs. The slumber of its external perception seems to be but the awakening of every other power. The memory is far more keen, the fancy far more vivid, in the dreaming than in the waking man. Ideas rise in rapid succession, and are varied in endless combination: so that the judgment, which next to the perception, depends most upon external objects, is unable to follow the imagination in all its wild and unwearied flights. A better notion of the separate and independent existence of the soul, cannot be formed, than that which we derive from our observations on the phænomena of dreaming.

Again, when the mind is anxiously engaged in any train of thought, whether in company or alone, it frequently neglects the impressions made upon the

external organs. When a man is deeply immersed in meditation, or eagerly engaged in a discussion, he often neither hears a third person when he speaks, nor observes what he does, nor even when gently touched does he feel the pressure. Yet there is no defect either in the ear, the eye, or the nervous system; the brain is not disordered, for if his mind were not so fully occupied, he would perceive every one of those impressions which he now neglects. In this case therefore, as in sleep, the independence of mind upon the external organ is clearly shewn.

But let us take the matter in another point of view. We have observed the action of the brain upon thought, and have seen that when the former is unnaturally compressed, the latter is immediately disordered or lost. Let us now turn our attention to the action of thought upon the brain. A letter is brought to a man containing some afflicting intelligence. He casts his eye upon its contents, and drops down without sense or motion. What is the cause of this sudden affection? It may be said that the vessels have collapsed, that the brain is consequently disordered, and that loss of sense is the natural consequence. But let us take one step backward, and enquire, what is the cause of the disorder itself, the effects of which are thus visible. It is produced by a sheet of white paper distinguished by a few black marks. But no one would be absurd enough to suppose, that it was the effect of the paper alone, or of the characters inscribed upon it, unless those characters conveyed some meaning to the understanding. It is thought then which so suddenly agitates and disturbs the brain, and makes its vessels to collapse. From this circumstance alone we discover the amazing influence of thought upon the external organ; of that thought which we can neither hear, nor see, nor touch, which yet produces an affection of the brain fully equal to a blow, a pressure, or any other sensible injury. Now this very action of thought upon the brain, clearly shews that the brain does not produce it; while the mutual influence which they possess over each other, as clearly shews that there is a strong connection between them. But it is carefully to be remembered, that connection is not identity.

While we acknowledge then on the one side, the mutual connection of the understanding and the brain, we must acknowledge at the same time on the other, their mutual independence. The phænomena which we daily observe, lead us of necessity to the recognition of these two important principles.

If then from the observations which we are enabled to make, on the phænomena of the understanding and of the brain, we are led to infer their mutual independence; we shall find our conclusions still farther strengthened by a consideration of the substance and composition of the latter.

Not only is the brain a material substance, endowed with all those properties of matter, which we have before shewn to be inconsistent with thought, but it is a substance, which in common with the rest

of our body, is undergoing a perpetual change. Although it cannot be accurately determined in how long a time the whole body undergoes an entire change, yet we may safely assert, that every particle which now exists in our bodies, will in the common course of nature be removed in the space of ten years, at the very utmost: a much shorter period, three years, or even less, is sometimes assigned for this total revolution in our frame. This change is principally effected by the activity of those absorbent vessels which are so plentifully dispersed through every part of the body. It is true that we know but little of the absorbents of the dura mater and the brain, but many fine injections have discovered to our view certain vessels in the brain, which by their form and by their nodosity appear to be absorbents. We have reason to think, says Buisson, that these vessels follow the carotid and vertebral arteries, and that they accompany them from the brain. Some small absorbent glands found in the channel of the carotid seem to confirm this opinion. So that we can scarcely call in question the existence of absorbents in the brain; at the same time their anatomical history is still very obscure.

Indeed experiments and observations give us abundant reason for concluding, that the brain undergoes within itself precisely the same change with the remainder of the body. A man will fall down in a fit of apoplexy, and be recovered; in a few years he will be attacked by another, which will prove fatal.

Upon dissection it will be found that there is a cavity formed by the blood effused from the ruptured vessel, and that a certain action had been going on, which gradually absorbed the coagulated blood. If then an absorbent system exists in the brain, and the organ thereby undergoes, in the course of a certain time, a total change, it is impossible that this flux and variable substance can be endowed with consciousness or thought. If the particles of the brain, either separately or in a mass, were capable of consciousness, then after their removal the consciousness which they produced must for ever cease. The consequence of which would be, that personal identity must be destroyed, and that no man could be the same individual being that he was ten years ago. But our common sense informs us, that as far as our understanding and our moral responsibility is involved, we are the same individual beings that we ever were. If the body alone, or any substance subject to the laws of body, were concerned, personal identity might reasonably be doubted: but it is something beyond the brain that makes the man at every period of his life the same: it is consciousness, that amidst the perpetual change of our material particles, unites every link of successive being in one indissoluble chain. The body may be gradually changed, and yet by the deposition of new particles, similar to those which absorption has removed, it may preserve the appearance of identity. But in consciousness there is real, not an apparent individuality, admitting of no change

nor substitution. Even in the brute creation, a principle similar in its nature, though far inferior in its degree, establishes the identity of the animal. An animal has no consciousness, because it has no power of reflection; but an animal of a higher class has that memory of external circumstances, by which its identity is established, as far as any necessity can exist for its establishment. In the lower classes, where it is not wanted for the purposes of life, it can scarcely, except in appearance, be said to exist.

There are other points connected with the anatomy of the organ, which afford us the strongest grounds for denying that it is the origin of thought.

In a child of eight years old, the limbs and all other parts of the body, are considerably smaller than in a man arrived at maturity; hence they are not endowed with the same strength, nor capable of the same action, as at a more advanced period. But the weight of the whole brain commonly arrives at its maximum at the age of three years, and all parts of the organ acquire their full dimensions at the seventh year, after which no alteration takes place during the whole life. Such is the result of the investigations of Wenzel, and of others who have given their attention to the anatomy of that organ. Now if the understanding originated in the brain, why should it not be as perfect at the age of seven years, as it is at the age of twenty? The organ in which it resides is equally perfect at both ages. We can account for the difference of bodily strength, at different periods

of life, from the organs not having arrived at their. full size and maturity, but we cannot account for the distinctions in mental power. It is not memory, nor education, nor discipline, that constitute the distinction; these, though they have great influence in improving and strengthening the mind, do not make the whole difference between the powers of a child and of a man. Every one accustomed to train the youthful mind, is well aware that there are certain periods when its intellectual powers, the comprehension, the imagination, the judgment, develope themselves in a manner, and to a degree, which cannot be accounted for upon any external principle. In the progress from childhood to maturity, an analogous change is often visible in the bodily frame; the muscles acquire solidity, the countenance is altered, and in a few months an awkward boy assumes the symmetry and the compactness of manhood. Yet in this instance it is not the nutriment received into the body which is the primary cause of so sudden an alteration, it is rather to the natural powers and constitution of the frame that the change must be attributed. So with respect to the rapid growth of the intellectual faculties, we must look for its primary cause, not in any extraordinary increase of intellectual nutriment, but in the natural constitution of the mind. Hence it is, that with the same external advantages of education, and with the same readiness in imbibing knowledge, two different minds will experience this development of power at two different periods of their existence. Yet that there is the slightest possible change in the appearance, the consistency, or any other quality of the brain, at these or any other similar periods, no physiologist will choose to assert. We may pursue this subject farther into manhood itself. If the brain were the source of intellect, we might surely expect to find every distinction in the scale of the latter, marked by a corresponding difference in the former. The difference between an elephant and a beetle is not so great, as between the extremes of genius and stupidity; yet in the brains which severally produce them, not the slightest distinction can be traced.

The system of Gall and Spurzheim, however ingenious or amusing in theory it may be, is annihilated by the commonest references to fact. Experience has shewn us, that a man may live in the full enjoyment of his intellectual faculties, although a part of his brain is destroyed by disease. Portions of the brain, various in situation and size, have been found to have been entirely disorganized, yet no single power of the mind was impaired, even to the very day of the patient's death. It would be difficult to find any one portion of the brain, that has not in some case or another been deranged in its structure, without any injury to the mind. Certainly, of the parts specified by Gall and Spurzheim, every one has in its turn been found wanting, without any deficiency in that intellectual faculty, which they would represent it either to produce or to sustain. An instance indeed

is upon record, of a child who lived for eighteen months, and could hear and see, and yet upon dissection but a slight vestige of brain could be found. Extreme cases at all times prove but little, and from the present instance we can only infer, that a temporary existence is possible, with a very minute portion of the brain; while, on the other hand, the early deathof the child, is a clear proof that such an existence must rapidly be concluded. It is not, however, by extreme cases only, but by much more common facts, that the flimsy theories of these German illuminati are to be demolished. It might have been expected that the eminent physiologists of the day, would have come forward in a body, to expose the absurdities of a system, which was at one time making converts in the country; especially when they were all in possession of those undoubted facts, which would have levelled it with the ground. Excepting in a very few instances, this master-piece of empiricism appears to have been treated with a peculiar delicacy.

So inconsistent with reason is every attempt which has been made to reduce our thoughts to a material origin, and to identify our understanding with any part of our corporeal frame. The more carefully we observe the operations, both of the mind and of the brain, the more clearly we shall distinguish, and the more forcibly shall we feel, the independence of the one upon the other. We know that the brain is the organ or instrument by which the mind operates on matter, and we know that the brain again is the chain.

of communication between the mind and the material world. That certain disorders therefore in the chain should either prevent or disturb this communication is reasonably to be expected; but nothing more is proved from thence than we knew before, namely, that the link is imperfect. And when that link is again restored, the mind declares its identity, by its memory of things which preceded the injury or the disease; and where the recovery is rapid, the patient awakes as it were from a disturbed dream. How indeed the brain and the thinking principle are connected, and in what manner they mutually affect each other, is beyond the reach of our faculties to discover. We must, for the present, be contented with our ignorance of the cause, while from the effects we are persuaded both of their connection on the one hand, and of their independence on the other.

CHAPTER VIII. CONTINUED.

The Independence of the Understanding upon the Bodily Organs further established by the Phænomena of Death.—Bodily and intellectual Life terminate not at the same Time.

If then we are warranted in concluding, that the understanding is not dependent on the brain, we shall have no reason for supposing, that the life or the inherent activity of these two distinct substances will terminate together, or that the dissolution of their connection will be the destruction of both. We know upon what our external life depends, and we know when the organization of certain parts of our body is disturbed, that the life which depends upon it will cease. But we do not know upon what our intellectual life depends, we only know that it does not depend upon the same. We have no reason therefore to suppose, that when organization is disturbed, our intellectual life will be annihilated. All that we can conclude from the destruction of the external organ is, that the thinking rinci ple will then be separated from all communication with the external world, when the link of its connection is thus dissolved. But it does not follow because a being is incapable of expressing its thoughts, that it therefore ceases to think.

Our observations upon the phænomena of death may, perhaps, throw a light upon this part of our subject. With the effects of death upon the external part of our system, we are all but too well acquainted. When the inherent activity, or life of the body has ceased, it becomes immediately subject to all those chemical agencies, which act upon inert matter. Putrefaction and decomposition, which the vital powers had so long resisted, rapidly ensue: and if exposed to the outward air, the softer parts are quickly dissolved, and flying off in vapour, are mingled with the substances of other bodies; the whole frame loses its character and identity; the heavier parts are converted into a species of mould, and in process of time the bones themselves will crumble into dust.

Now certainly no such changes as these can take place in our thinking principle, which as I have shewn, is essentially indivisible.—But if it cannot be decomposed, it may perhaps finally be extinguished, together with the life which animates the material frame.—In answer to this, we must first observe that the external life, and the intellectual life are two very different things; the first is only a power, which requires a substance in which it should reside, the latter is an independent principle, capable of a separate existence.

They are therefore affected by death in two different ways, the life of vegetation cannot exist without its body, it ceases therefore to act, when the substance in which it resides, by a disturbance in its organization, is incapable of being acted upon; the intellectual life, as it has an independent existence, so it must suffer an independent extinction. As then the two lives are so different in their nature, we have no reason to conclude that they will terminate together.

That the mind should often be affected by the maladies of the body, is the necessary result of their close connection. But there are diseases, many in number, and different in species, which even in their utmost violence, will cause no disorder in the intellectual faculties. Even under the acutest agonies of which our frame is capable, the mind is often tranquil and undisturbed. If we pursue the progress of disease to the very hour of death, we shall see this in a still stronger point of view. Cases daily occur where the strength is gone, the vital powers are rapidly retreating, and the patient is lying helpless hopeless, waiting for the very moment of impending dissolution: yet his mind shall be as vigorous, his judgment as sound, his imagination as ardent as in the days of his health and strength. Even in the very convulsion of bodily death, the life of his understanding and his affections shall be unimpaired. Here then we have the strongest possible presumption that the thinking principle shall survive the frail and perishon the other hand examples may be adduced, where bodily pain or languor produce a corresponding effect upon the mind, and when the patient expires in a state either of delirium or of ideotcy. But this disorder or alienation of the thinking principle, does not at all presume its extinction with the life of the body, it only proves the intimacy of their present connection.

It was a favourite doctrine of the ancient Epicureans, that as the mind and the body increased together in youth, and flourished in maturity, so they decayed together in age, and at the same instant were finally annihilated. A similar notion appears to have been adopted by the physiologists of the French school. The following account of the gradual extinction of the mind and of the body in the old man, is to be found in the Encyclopædia of Dr. Rees. Article Death. The reader, however, ought to be apprized that every sentence of it is a literal translation (though without the slightest acknowledgment) from the French of M. Bichat. Recherches sur la vie et la mort. P. 143.

"The man who dies at the conclusion of an ad"vanced age, expires in detail. His external
"functions gradually cease; the senses are lost in
"succession, the ordinary stimuli no longer pro"ducing any effect on the organs. The sight be"comes obscure and imperfect, and soon ceases
"altogether, to transmit objects to the sensorium;

" the hearing, feeling, and smelling, are lost in the " same way. The taste still remains awhile, as the " situation of its organ connects it with the organic " as well as the animal life. Thus, when every " agreeable sensation is lost, and the ties which con-" nected the old man to external objects, are nearly " all destroyed, this alone remains, and is the last " thread upon which the enjoyment of existence is " suspended. The inactive state of the organs of " sense is quickly succeeded by a loss of the functions " of the brain. Perception soon decays, when the " senses supply no matter for its exertion, and the " power of imagination follows. The memory of " recent circumstances is lost, because the senses " weakened, and almost dead, transmit them im-" perfectly to the brain. Past transactions are still " often remembered with tolerable exactness. Hence " the old man judges only according to the sensa-" tions, which he has experienced heretofore, while " the child is influenced solely by his present feel-" ings; and the judgment in either case must be " equally uncertain. As the interruption of the " functions of the brain is a necessary consequence " of the nearly total annihilation of external sensa-" tions, so it affects, in its turn, the powers of loco-" motion and speech. The brain, being acted upon " by the senses, re-acts upon the muscles in a pro-" portionate degree. The motions of the old man " are few and slow; it is with difficulty that he quits

"From the preceding view, it appears that the ex"ternal functions are gradually extinguished in an old
"man; and that the animal life is almost annihilated,
"whilst the organic still retains its activity. At this
"time, the state of the man who is about to perish
"by a natural death, approximates to that of the
"fœtus in utero," or of the vegetable, which lives
"only internally, and has no perception of external
"objects."

This melancholy portrait of declining age is painted in the truest colours. But though just, it is not general. The French physiologist, and his English plagiarist, have given their readers to understand that such is the uniform condition of those who reach the full term of their appointed years. This representation cannot but be considered as highly disingenuous, since the experience of any one who has been in the habit of attending the aged in their last hours, will immediately controvert the assertion. In point of fact, instead of reducing all the instances

of death among the aged under one class, M. Bichat ought to have divided them into three.

First, According to his own view of the subject, where the mind and the body decay together.

Secondly, Where the mind decays before the body. There are numerous instances where the imagination is extinguished, the memory fails, the judgment vacillates, and yet every function of the body proceeds unimpaired. Whatever else we may infer from this example, we must at least so far conclude, that the mind and the body do not decay together.

Thirdly, Where, in the very extremity of age and its consequent debility, the faculties of the mind are as clear and as powerful as ever. Many cases have passed under my own observation, where the failure of voice, coldness of the extremities, a pulse scarcely sensible, and other symptoms, have announced to the worn-out constitution the approach of dissolution, and yet the memory, the judgment, and even the fancy itself of the aged patient were unabated. In age, as well as in disease at an earlier period, when the taper of life has been exhausted even to its last spark, and extinction was now rapidly advancing, the mind, so far from partaking in the decay or the destruction of the body, has appeared to be endowed with a strength and a clearness of intellectual vision, increasing gradually as the moment of its emancipation from the body was now approaching. There is often something prophetic

in the last views of a dying man, not indeed from any supernatural powers, but from that calm and dispassionate survey of human affairs which a good man takes, when he feels himself rising from the turbulence of this distracted world, into a higher and a better order of things, Then it is that he views human pursuits and objects in their proper colours, and the veil of prejudice and passion being removed, he forms a clearer estimate, and a surer judgment of the probabilities of human events.

Are we then to conclude that there is a distinction in the nature and in the tenure of the understanding between man and man? This is a proposition very difficult of proof, and would be highly inconvenient to the Sceptic if proved; since the uniformity of all natural appearances is his strongest hold.

Nor is the apparent decay of the faculties of the soul any argument of its final extinction: We have daily examples, in which the powers of the understanding have been partially disturbed, nay even totally suspended under the influence of disease, and have been afterwards restored to their former vigour. After a violent fever the mind is often considerably affected, and exhibits all the marks of debility and decay which we observe in the aged; yet in a certain time it will recover its strength and its tone, and lose every vestige of disorder. It may be worthy of remark, that in these cases especially, the faculties of mind are slower in their recovery than those of the body. Even when the bodily health is restored, some

time will often elapse before the full powers of the mind return. In actual mania, instances are not infrequent of a lucid interval immediately preceding death, and of a restoration of the understanding at the precise period when it was probable that it would have been most disordered. These and other more common examples of recovery from faintings, from the delirium of fever, and from fits of periodical insanity, are proofs of perfect restoration after suspension and decay. We have a very strong presumption, therefore, that the faculties of the mind after that apparent alienation or decay, which sometimes precedes death, will ultimately be restored.

Thus then, in all the observations which our experience will enable us to make upon the phænomena of death, we find nothing that will at all invalidate the independency of the thinking principle within us. On the contrary, the strongest cases which the adversaries of this doctrine can adduce, prove nothing against it; while the innumerable instances which may be cited on the other side of the question, afford the highest possible presumption in its favour.

CHAPTER IX.

The Volition of Animals an immaterial Principle
—but not therefore immortal—Distinctions between the Animal and the Man with respect to a
future Existence.

HAVING, in the preceding argument, taken the single principle of life, as it appears in the plant on the one side, and the triple principle, as it appears in man on the other. I now proceed, according to my promise, to consider the double principle, as it is found in the animal creation. While the plant is endowed with organic life alone, the animal enjoys the life of volition. It is this which gives it the power of voluntary motion, of sensation, perception, and of that sagacity, which though it may sometimes rise to a very high degree, is, nevertheless, totally distinct from the understanding in man.

If there be any force in the preceding arguments, many of them are as much applicable to the animal as to man. If voluntary motion must be effected by an immaterial agent, every animal must have an immaterial principle within it.

This is a point much insisted upon by the Sceptic, who thinks that he can defeat the Christian upon his own ground, by shewing, that the same reasoning which will prove the existence of a soul in man, must also prove its existence in a lobster or a flea. But here, as in every other instance, the Sceptic proceeds to draw his inference from a part only of the argument, avoiding with his usual caution, all those other reasonings, which, if candidly stated, would immediately demolish his conclusions.

It may fairly be inferred from the preceding arguments, that the principle of volition in the animal, is immaterial; but, because it is immaterial, it is not, therefore, of necessity, immortal: on the contrary, all those facts and reasonings, which give us the highest presumption of the immortality of the human soul, are totally inapplicable to the principle of volition in the animal.

In the first place, when the Sceptic talks of the soul of an animal, he uses an invidious, and an unwarrantable term. We have seen, that it is the third principle of life, the understanding, which constitutes the human soul. It is an useless perversion of language, to apply the term "soul" to a substance, which has neither reflection, abstraction, imagination, responsibility, nor any other power which is in common acceptation included under the word. Now almost every argument on which we presume

the human soul to be immortal, is deduced from the powers of the understanding, and is, therefore, wholly inapplicable to the animal.

Moral responsibility, is, as we have seen, the peculiar privilege of man. It is this which makes him answerable for all his actions, even after the longest interval, and suggests to the mind, even of the most successful offender, the alarming thought of a future retribution. To answer the ends of common justice, it is highly probable that there will be a system of future rewards and punishments; and such a system, in its outline at least, corresponds with the hopes and fears of every rational mind. Now, as an animal has neither hopes nor fears beyond the objects of immediate sense, nor any moral responsibility attached to its actions, it is incapable of any immortality which implies retribution.

That very desire of immortality which distinguishes the human soul, is of itself a very powerful argument for the ultimate attainment of its object. The desire of immortality, must be allowed by the Sceptic, to be on every account a desire highly rational; and there is no rational desire of the human mind, which man has not some general means of fulfilment. Though, in particular cases, a disappointment may occur, yet the objects of universal desire, whether they be riches, or honour, learning, or power, are generally attainable; and where the wish is defeated, it is usually from a miscalculation of the powers of attainment. This general grati-

fication of desire appears to pervade the whole living creation. The natural appetite of the animal has always ample means afforded for its satisfaction; and the instrument is uniformly adapted in the wisest manner to its end. The very desire, therefore, of immortality, which we find implanted in the mind of man, which in every age and nation has been cherished and supported, is a strong presumption in favour of its final gratification. But it appears to be also a law, that where the appetite does not exist, the action is incompatible with the nature of the animal. No extremity of hunger would induce a cow, or a horse, to feed upon carrion, nor a dog upon hay. Now, there is no animal which has a desire, nor even a notion, of immortality. As, therefore in man, the existence of this rational desire, is a strong presumption in favour of its gratification, so the absence of the desire in the animal, is almost a proof, that from its very nature, it is incapable of immortality.

There is something, again, both in the gradual improvement, and in the discipline of the human mind, which would seem to point to some ulterior object. Especially in the decline of life, when, to a calm and Christian mind, the events of this troubled world appear in all their real colours, we can clearly see that all the reverses which we have suffered, and all the trials which we have undergone, have been working for some ultimate purpose. The reformation of our morals, and the improvement of our

souls, which are the immediate effects of such dispensations, naturally carry us on to the enquiry, why we should be reformed, or why we should be improved. The welfare of society is, at best, but a a partial reason. Man lives for himself as much, if not more, than he lives for others; and, perhaps, most of the benefits which he may have conferred on society, are reflected back upon himself again in the consciousness of having discharged a great and important duty. Let the advantage arising to society be what it may, the permanent improvement is still within-an improvement, which clearly points to another state of being, where it will be recognized and rewarded. If the discipline of pain, disappointment, or distress, shall moderate our desires, controul our passions, calm our anxieties, increase our benevolence, and enlarge our prospects of future immortality, surely there is an end and purpose in such discipline beyond our present existence. On the contrary, the greatest part of the animal creation is capable of no sort of improvement whatever; and with the very few, on whom education and discipline have any effect, the improvement is merely mechanical. A dog may hunt this year better than it did the last, but it is not, therefore, in any degree the better adapted for a spiritual and a future world. If the habits of an animal are changed for the better, it is in reference only to sensible objects, and to its present sphere of action. The argument, therefore, and a very strong one it is, which arises from considering this world as a state of moral discipline and improvement to man, is totally inapplicable to the animal creation.

These arguments might be considerably enlarged upon, but enough has been adduced to lay the foundation of a real and a solid distinction between the animal and the man, with respect to a future existence. All the facts and reasonings, from which we infer the immortality of the human soul, fail when applied to the sentient principle of the brute creation. The truth is simply this, that neither the one, nor the other, are of necessity immortal; they will each continue to exist as long as the will of their Creator shall determine. By that insight into the ends and purposes of created beings which our reason affords us, we are convinced, that the life of volition in the animal is intended to conclude with the life of its body, but that the life of the understanding in man will be carried on into a future state of things. Revelation has fully confirmed the sentence of our natural reason, with the addition of this assurance, that the future state, in which all our hopes and fears are involved, will be eternal.

Sceptical men have uniformly endeavoured to diminish the terror of death, by representing it only as a common debt we owe to nature, for our past enjoyment of life. Sir T. C. Morgan has presented us with this view of the subject, in the volume to which I have before referred.

" By mankind, in general, death is conceived to " be a violence inflicted upon humanity, as the con-" sequence and punishment of transgression, and " punishment, by an obvious association, introdu-" ces the idea of sufferance. But an acquaintance " with nature, exhibits dissolution not less in har-" mony with the laws of nature, than life itself. " Mortem a diis immortalibus non esse supplicii " causâ constitutam sed aut necessitatem naturæ " 'aut laborum ac miseriarum quietem esse ".' The " same universality of consent, the same general " combination of function, which gives hope, " vigour, and restless curiosity in the season of " youth, reigns equally over the hour of decease, " and composing all the feelings in numbness and " confusion, fits the mind no less than the body for " the impending process." P. 70.

That our bodies are calculated by nature, only for a very limited existence, is a point which I imagine, has never been disputed. But if by the latter part of the above citation, which, by the way, is not very intelligible, Sir T. C. Morgan means to assert, that by any law of nature, our faculties are so "composed in "confusion" as to be insensible to the feelings of approaching dissolution, the experience of every man who has been accustomed to attend the couch of the dying, will flatly contradict him. The fact

^{*} Cicer. in Catilin. IV.

being once disproved, all the inferences which follow will of course be annihilated.

It is somewhat curious, however, to observe the very ingenious manner in which the authority of Cicero is adduced in support of an opinion, which that consummate philosopher would, in all the power of his mighty mind, have rejected and disdained. The quotation is rather an unfortunate one. The words certainly occur in the Oration which Sir T. C. Morgan has cited, but the sentiment happens to belong not to Cicero, but to Cæsar. When it was proposed to inflict the punishment of death upon the associates of Catiline, Cæsar, who certainly was far from being hostile to the conspiracy, did not choose to oppose it openly, lest he should betray his attachment to the cause. But in order to save their lives, he uses this sophistical argument. "Death," says he, " was not intended by the gods as a punishment, " but it comes in the course of nature, and is a re-" pose from labour and misery: and as such it is " submitted to by the wise, and even courted by the " brave." Cæsar contends, therefore, that death is too good for the conspirators, but that confinement for life was a much more proper punishment. In his answer to this speech, Cicero cites the words of Cæsar as above, in order to make his comments upon them—and thus it is that he is converted by Sir T. C. Morgan into an advocate of eternal sleep.

But philosophers do not always agree as to the path which should lead them to the same conclusion.

In the Encyclopædia of Dr. Rees, we find the following observations upon death, borrowed, as before, from the French of M. Bichat. "The thought of death is painful, only because it terminates our animal existence, and thereby extinguishes all those functions which keep up our relations with the external world. It is nothing but the interruption of these functions, that makes us look upon death, with feelings of regret and fear."

Was it the interruption of the vital functions alone, that made the death-bed of Voltaire, in the words of the Mareschal Richelieu, "A sight too "terrible to be sustained?" Was it this cause which produced an effect nearly similar in the dying D'Alembert, of whom the ferocious Condorcet himself confessed, that "Had I not been there, he "would have flinched also."

The author of this article is right in asserting, that the thought of death is painful, and that we look upon it with feelings of regret and fear—but it is of regret, for our sins that are past—of fear, for an account that is to come. Death has, assuredly, a sting, its wound is deep, its anguish is sharp. The sting of death is sin, and the consciousness of unrepented crime. Death is not painful as it is the termination of our present existence, but as it is the commencement of another. This is a fact, which the testimony of experience establishes, beyond the power of sophistry to deny. In an animal, death has no sting beyond the mere pain of bodily dis-

solution; in man, the intellectual agony is often intolerable, and affords to the departing Sceptic, but too sure an anticipation of the fearful reality of a future retribution.

CHAPTER X.

The immediate Agency of God in the Communication and the Preservation of Life.—Conclusion.

If a bullet were suddenly to break the window of the room in which we happened to be sitting, and to lodge itself in the opposite wall, it would be rather difficult to persuade us that this bullet found its way into the room of its own accord, without being fired from a pistol or some other engine of similar power. Upon taking the bullet from the wall, we should find that it was a substance, subject to all the laws of matter, and that though it lately moved with so extraordinary a rapidity, it was now totally inert, and would continue so for ever, unless actuated by some external force. We might be wholly ignorant of the nature of the engine from which it was projected, but we should not therefore entertain a doubt of its projection.

Yet the Sceptic will see an activity far more extraordinary in the body of a plant, of an animal, and of a man, and will at the same time deny the existence

of any principle of motion superadded to their struc-The body, no less than the bullet, is a mass of inert and passive matter. In the body of him that died vesterday, there is the eye, but it cannot see; there is the ear, but it cannot hear; there is the blood, but it cannot circulate. All is cold, stiff, and motionless. In some cases the structure is as perfect as ever, in others some principal vessel is ruptured. Yet here, as in the case of the bullet, we can account for the cessation of the motion from some external cause. The question still recurs, from whence did the motion originally arise, the body having nothing essentially active either in its nature or its construction. "From " its vital properties," the Sceptic will triumphantly rejoin. Which answer, in plainer language, is simply this—that it is active, because it has activity; that it lives because it has life.

To account for the origin of life, we shall probably be referred to the principle of GENERATION, or the power which all organized and living bodies possess of reproducing their kind. This is the principle on which the Sceptic will account for all the phænomena of life in the world around him. But here again a little examination will shew us, that we are only tracing backward the effect, but that we are not one degree nearer the cause. "Generation," as Paley has well remarked, "is not a principle, but a pro"cess; and," as he adds, "we might as well call the
"casting of metals a principle." Even if we take all the facts which we find in a laborious article upon

this subject in the Encyclopædia of Dr. Rees for granted, still we are as much at a distance from the efficient cause as before. It matters not through how many bodies we trace the succession of activity and motion, we must come at last to the hand from which the impulse was originally given, to the first intelligent, independent, moving power.

That power is God. He is the one supreme and perfect Being—independent in his existence, infinite in his wisdom, eternal in his duration—the author of all power, the source of all life, the cause of all motion.

But it is difficult, the Sceptic will rejoin, to understand the nature of a first, independent Cause, which must of itself have existed from all eternity. It is true that there is a difficulty; but it does not arise so much from our inability to conceive a first Cause, as from our incapacity to comprehend an eternal one. The powers of our mind are finite, but eternity is infinite; consequently we have no means of measuring its boundless duration. The nature therefore of the Being, whose existence is eternal, cannot be wholly comprehended by us.

But how shall we relieve ourselves of the difficulty? Are we to believe that every object which we behold, has produced itself by successive generation for an infinite period. Let us pursue this notion to its utmost limit, and we shall find ourselves involved in the same sort of difficulty as before; with this difference, that instead of one independent first Cause,

which we reject, because we cannot entirely comprehend its infinity, we create more than a million of first causes, precisely the same. We make every species of animal, of reptile, of tree, and of plant, a first cause and an independent being in itself, without beginning, and therefore existing from all eternity. For if we once allow a beginning, the argument derived from infinite succession immediately drops to the ground. So far therefore are we from getting rid of the difficulty by these infinite successions, that we increase it to an incalculable amount. Whatever may be the mysteries of religion, they shrink into nothing, when compared with the mysteries of infidelity.

But there is one branch of natural philosophy, Geology I mean, which as far as the consideration of the earth is involved, at once annihilates that uniform succession of natural appearances, by which the Sceptic would invalidate the existence of God. From finding the remnants of marine animals onthe tops of the highest inland mountains, the Geologist concludes, that the time was, when the face of the earth must have been overwhelmed with water. Now according to the laws of nature, as they at present exist, this is utterly impossible. This one simple fact therefore establishes, beyond the possibility of all doubt or cavil, the existence of a power superior to these natural laws; of a power to create, to suspend, and to restore them, according to its Almighty pleasure. And if the

existence of this power be established, with respect to one part of the creation, it is established with respect to all. If there be a first independent Cause, He must be the Cause of all things, nor can any part or portion of the universe, or of its inhabitants, be exempted from his dominion.

If in the order and constitution of things around us we see such innumerable and such overpowering proofs of wisdom, intelligence, and design, that as rational creatures we cannot entertain a doubt as to the existence of the Almighty Being which designed them; so neither can we observe the endless phænomena of motion and of life, without ascending in our meditation to Him who is the origin and the source of both. Even "the regular motions of the planets," as Sir Isaac Newton observes, " have not their " origin in mechanical causes," much less have all the varied functions, properties, and peculiarities of living beings, their source in any material impulse. Matter is first organized as a recipient of life, and after it is so organized, life is imparted. It is true that a living being is uniformly the channel by which life is communicated, but it is not therefore the cause of the communication. The plant apparently produces the seed, and the seed again the plant, yet if we examine the matter with attention, we shall find that they are agents only of a superior power. It is a gross perversion of terms to say, that the grain of corn which we hold in our hands has any real independent power; the inherent activity which it possesses is to be ultimately ascribed not to a senseless parent plant, but to a sensible and an intelligent cause—who first, through the channel of this parent plant, prepares and organizes the structure, and then communicates motion, activity, and life.

But if an intelligent first cause is necessary to communicate the life of vegetation to a plant, much more is its agency required to communicate the life of volition to an animal, and of the understanding to man. Common experience informs us that we cannot in any degree communicate mind or intelligence to our offspring. Where is the understanding of a child of a week old? Many an animal at the same age surpasses it in the operation of its early instinct. Whence then does the understanding arise? by whom is it produced? How is it gradually increased and strengthened? Not by any act of the parent; not by any external power. Much less, as I have already shewn, is it dependent on the growth, or the development of the brain, or of any other material organ.

How often, again, do we see a man of the most brilliant genius, born of very dull and heavy parents. Where, I would ask the Sceptic, do you find a natural cause for so common a variation? and how, upon any principle of succession, or generation, can you account for such a disparity?

Take, again, the tenure of life.—Who is it, that regulates the infinite diversities which we observe both in the vegetable and in the animal world?

Some plants and animals are calculated to live only for a single year, others for ten, others for fifty. The varieties which we discover in the tenure of life are almost infinite. Here, then, we see the operation of a first intelligent Cause, not only in apportioning to every one its share of vitality, but in preserving under such uniform laws, to each its separate portion, and in adapting its frame and constitution to the share which had been previously determined.

If in the communication of life we clearly trace the immediate agency of God, much more shall we discover the continued operation of the same great Cause in its preservation and continuance.

We say, that the blood circulates, that the glands secrete, that all the functions of absorption, assimilation, and nutrition, proceed according to certain laws. We say, again, that a stone falling to the ground, obeys a certain law, and according to the latitude of expression allowed in common language, our words are true. But if we take a step backwards in the argument, we shall find, that a law presupposes the existence of a lawgiver; a law is not of itself an action, but a rule of action. Sir Isaac Newton understood this matter better than the French physiologists, when he asserted, that "Gra-" vity must be caused by an agent, acting con-" stantly according to certain laws*." The word

^{*} Newton's Works, vol. iv. p. 438.

taw cannot supply the place, or annihilate the reality of the agent. In addition to this, how can a plant, or even an animal body, obey a law? It is volition only, which is capable of obedience: and, in point of actual fact, we know that there are thousands of motions going on every moment within our bodies, which proceed from no will nor act of our own. And even with respect to those motions which we have it in our power to cause and to controul, the body is only a passive instrument.

The observation of Sir Isaac Newton with respect to gravity, is equally true with respect to life. The inherent activity, whether of a plant, an animal, or a man, is caused by an agent acting constantly. That he acts uniformly, i. e. according to certain laws, is no argument against the constancy of the operation. The same power which created and communicated the activity, which as living beings we possess, is exerted in every successive instant of time, to maintain and preserve it. Could we suppose the Creator for one moment to suspend this supporting influence, a cessation of all the phænomena of life must immediately ensue. No organs or systems of organs, which are but senseless instruments, could of themselves for one moment obey any law, or preserve the activity of life. So strictly, and so literally do sound reason and philosophy coincide in the declaration of Scripture, that in God "we live, and move, and " have our being."

Here then we conclude: and happy shall we be,

our life to the power, of a first Almighty Cause; we shall be led upwards to meditate upon his infinite perfections, and his wise dispensations—to view ourselves as the creatures of his hand, and the children of his care, sustained by his especial Providence, and preserved by his constant mercy.

Happier still shall we be, if these reflections shall awaken our souls, and carry them onwards but a few years in their contemplations, from the life which now is, to that which is to come. If there be another world, and our reason and sense assure us that there undoubtedly will, it would be well for us to consider, what will be the part, which we shall there be doomed to sustain.

Think freely, I would say to the Sceptic, upon this awful subject, think as freely as you will—but think. Call your understanding into action; if you have been perplexed by the sophistries of Hume, study first the more popular treatise of Beattie, and then the closer Analogy of Butler. If your faith has been shaken by the ribaldry of Paine, read the wise and animated Apology of Watson. Then descend into your own heart, and calmly enquire, whether it was reason or prejudice that has influenced your decision; and candidly say, whether you have not adopted the system which was most indulgent to your passions, and least in opposition to your vicious inclinations. Apply the same tests to Christianity on the one hand and to Scepticism on the other; and that

which you find the most flippant in its language, the most artful in its insinuations, the most inconsistent in its principles, the most untenable in its arguments, and, above all, the most flattering in its indulgences, boldly pronounce an imposture, and reject it accordingly.

Notwithstanding all the attempts which have been made to dissolve the connection, Revelation and science will ever receive a mutual countenance and support from each other. All the labours of philosophic research have illustrated the page of Revelation, and Revelation itself has added strength and solidity to the discoveries of science. In the course of the present enquiry, you have seen into what palpable absurdities men, wise in their generation, have fallen, when they would raise the fabric of their philosophy upon the quicksands of infidelity. If, on the other hand, you would know what one of the greatest philosophers, and one who was sufficiently unbending to the prejudices of his times, thought of Revelation, you shall have it in his own words ;- may they sink deep into your understanding and heart, and finally be adopted as your own. " It has God for its author, " salvation for its end, and truth, without any mixture " of error, for its matter *."

^{*} Locke's Posthumous Works.

which you find the most Bippoint in its language, the most artist in its instinuous action in its principles, the most inspiral in its principles, the most most midde in regarding the most first middle in regarding the most first middle in regarding the most first middle in its institution of boldly pronounce has imposture, and reject it not contingly some in the management of the contingly some first management and accordingly some first management and according to the management and accordingly some first management and according to the management

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NOTES.

Page 12. In the French Encyclopædia, the articles in which religion was immediately discussed.] Under the article God, we shall find the most orthodox notions of his attributes, and all the best physical and metaphysical arguments for his existence. Yet in the articles Demonstration, Encyclopædia, and Epicurism, the lessons of Spinozism and materialism are decidedly inculcated. See the Abbe Barruel's Memoirs of Jacobinism, vol. i. p. 58.

Page 15, Chapter II.] This and the following chapter contain the substance of three sermons preached before the University of Cambridge, in the month of November, 1818.

Page 16. Even the very authors who in one part of their writings have raised the fabric of Deism.] The first man who reduced Deism to a regular system, was LORD HERBERT, of Cherbury. Yet so inconsistent was his lordship with himself, as to believe that the Almighty sensibly revealed to him from heaven his approbation of the treatise De Veritate, by which all revelation whatever was to be proved an imposture. See Leland's Deistical Writers, vol. i. p. 43. LORD SHAFTESBURY professed his belief in a Supreme Being, but would banish from the human mind all respect to future rewards and punishments. "The hope of future "reward, and fear of future punishment, cannot consist in "reality with virtue and goodness, if it either stands as essential to any moral performance, or as a considerable

" motive to any act, of which a better affection ought alone " to be a sufficient cause." Charact. vol. ii. p. 58. CHUBB was a great advocate of Deism in opposition to Christianity, and yet in his posthumous works, vol. i. p. 127, he tells us that " he looks upon God as having nothing now to do with " the good or evil that is done among mankind." And in another place, he positively denies the interposition of Providence, and its controll over secondary causes. COLLINS, another professor of Deism, wrote against the immateriality and immortality of the soul, which was admirably answered by Dr. Samuel Clarke. LORD BOLING-BROKE, in many passages, speaks of the immortality of the soul and of a future state, with reverence and respect. "I " embrace with joy the expectations it raises in my mind." And again, "The ancient and modern Epicureans provoke " my indignation, when they boast as a mighty acquisition " their pretended certainty that the body and soul die " together." Philosophical Works, vol. v. p. 125. Yet in various other parts of his works he combats all Mr. Woolaston's arguments, in favour of the soul being an immaterial and an immortal substance, and adds, in the character of a plain man, that "he saw no positive nor determining proof " of any of these doctrines; that all the phænomena, from " our birth to our death, seem repugnant to the immateria-" lity and immertality of the soul, that he is forced to con-" clude with Lucretius,

"Gigni pariter cum corpore, et una,
"Crescere sentimus pariterque senescere mentem."

Philos. Works, vol. i. p. 269. A few pages afterwards, he speaks of the doctrine of future rewards and punishments, as a sort of politic restraint on the passions of men, but he never for a moment admits their reality.

In modern times ROUSSEAU has stood forward as the great leader of the school of sentimental Deism. Yet this very

man, who at one time beholds the Deity displayed in every appearance of the natural world around him: at another, thus writes to Voltaire respecting the existence of God. " Frankly I confess, that neither the pro nor the con ap-" pears to me demonstrated." Letter to Voltaire, vol. xii. 4th edit. of Geneva. Again in his Emile, he declares that " Atheists are the disturbers of the public peace, and as " such worthy of death." Vol. iv. p. 68. But in his letter to M. Vernier, he says " I declare my sole object in " the Nouvelle Heloise was to unite the two opposite " parties (the Deists and the Atheists) by a reciprocal " esteem for each other, and to teach philosophers that one " may believe in God without being a hypocrite, or deny " him without being a rascal." A very full and satisfactory account of the inconsistencies of the philosophical Deists of France, respecting the very first Articles of Belief, will be found in the Memoirs of the Abbe Barruel, vol. i. p. 275, &c.

Page 22. Scepticism is most indulgent to the passions. "There is almost as great difficulty, I acknowledge, to " justify French as Greek gallantry; except only, that the " former is much more natural and agreeable than the " latter. But our neighbours, it seems, have resolved to " sacrifice some of the domestic to the social pleasures. " and to prefer ease, freedom, and an open commerce to a " strict fidelity and constancy. These ends are both good, " and are sometimes difficult to reconcile." HUME, Essays, vol. ii. p. 389. "All ideas of justice and injustice, of " virtue and vice, of glory and infamy, are purely arbitrary, " and dependent on custom." FRERET, Letter of Thrasy-" It little imports whether men are vicious, if bulus. " they be but enlightened." HELVETIUS on Man, vol. i. p. 2. 7. " Modesty is only an invention of refined volup-" tuousness-morality has nothing to apprehend from love, " for it is the passion which creates genius, and makes man "virtuous." HELVETIUS, *Ibid.* ii. 4, and 15. A system of Sceptical morality would fill a volume, and form a worthy companion to a florilegium of Jesuitical casuistry.

Page 35. A proposition once proved to be true.] See a very useful little treatise on the Evidences of Religion, by the Rev. H. Walter, Professor of Mathematics at the East India College, p. 11.

Page 39. We do not know enough to assign any ultimate cause.] "Natural philosophers, by great attention to the "course of nature, have discovered many of her laws, and "have very happily applied them to account for many phæ-"nomena—but they have never discovered the efficient cause of any one phænomenon, nor do those who have "any distinct notions of the principles of the science, make any such pretence." Reid on the Powers of the Human Mind, vol. iii. p. 48.

Page 40. The minds of some who have been exclusively accustomed to strict mathematical demonstration.] Vide Warburton. Introduction to Julian, p. xix.

Page 47. By substituting in our speculations, nature for God.] Vide Credibility of Scripture Miracles vindicated by Professor VINCE, p. 77.

Page 64. In this volume Mr. Lawrence has plainly told us.] As many of the observations which I have here made upon the Lectures of Mr. Lawrence, resemble those which appeared in the British Critic of July, 1817, it may be perhaps necessary to say that the author of both is the same person.

Page 75. Richerand would argue.] RICHERAND'S Physiology, translated by De Lys, p. 13.

Page 77. The understanding is the principle which dignifies and adorns the life of man.] Juvenal in a very fine passage has drawn the same sort of distinction between the anima of the brute, and the animus of the man.

[&]quot; ——— Separat hoc nos
" A grege mutorum, atque ideo venerabile soli

- " Sortiti ingenium, divinorumque capaces,
- " Atque exercendis, capiendisque artibus apti
- "Sensum e cœlesti demissum traximus arce,
- "Cujus egent prona, et terram spectantia. Mundi
- " Principio indulsit communis conditor illis
- "Tantum animas, nobis animum quoque," &c. &c.

SAT. XV. 142.

Page 77. An animal may remember the past.] "It "does not appear that brutes have the least reflex view of "actions as distinguished from events." Bp. Butler's Analogy.

Page 78. In man we recognize both these faculties.] Without any tendency to the doctrine of innate ideas, we must allow that in many of the minuter points of animal life, our actions, if they be worthy of the name, appear to be directed rather by a suggestion of instinct than by a process of reason. An infant of a few hours old cannot be taught to suck or to swallow. These motions, among many others, appear to be purely instinctive.

Page 78. Three degrees distinct in themselves.] Bp. Horsley, in a sermon before the Humane Society, has given a hint of the triple principle of life in man. "Human life "is undeniably a compound of three principles, of intelligence, perception, and vegetation." Sermons, vol. iii. p. 195. But with this sentence the Bishop leaves the subject, asserting only afterwards that the life of vegetation is mechanical; an assertion which, in philosophical language, at least, is wholly inadmissible.

Milton, indeed, in his PARADISE LOST, as has been suggested to me by an unknown correspondent, appears to have entertained a more accurate notion of this triple principle, when he speaks of

Growth-sense-reason, all summ'd up in man PAR. LOST, IX. 113.

Upon which passage Richardson makes the following observation. "The three kinds of life, rising as it were by "steps, the vegetable, animal, and rational, of all which "man partakes, and he only; he grows as plants, minerals, and all things inanimate; he lives as other animated "creatures, but is over and above endued with reason."—Newton's edition.

Page 79. Is endowed also with the means of producing its kind.] This will not hold good in those cases, where the laws of natural production have been previously violated—as in the instance of a mule.

Page 86. If we consider the various qualities of matter.] Whoever is desirous of seeing these points discussed much more at large, will find great satisfaction in reading Dr. S. Clarke's Letter to Mr. Dodwell, and his defences of it. See Clarke's Works, fol. edit. vol. iii.; also Baxter on the Soul, sect. v. p. 158; and Woolaston's Religion of Nature, sect. ix p. 186. In the last of these works the argument is drawn up in the simplest and most compendious form.

Page 96. 'Although it cannot be accurately determined in how long a time the whole body undergoes an entire change] "Attempts have been made to determine the "period at which the body is completely renovated; it has "been said that an interval of seven years was required for "one set of molecules to disappear and be replaced by "others; but this change must go on more rapidly in child-"hood and in youth" Richerand's Physiology, p. 243. Though considerable differences exist among the Physiologists, as to the rationale of absorption, the facts are admitted and argued upon by all.

P. 96. We have reason to think, says Buisson.] "On connoît peu des absorbans de la dure mère et du cerveau. * * *

" Plusieurs injections fines ont rendu sensible sur le " cerveau, des vaisseaux, qui par leur disposition, par leur

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"forme, et par leurs nodosités paroissent être des absor"bans. Cependant on a peu de preuves positives sur
"leur nature. On pense qu'ils suivent les arteres caro"tides et vertébrales et qu'ils sortent du crâne avec elles.

"Quelque petites glandes absorbantes trouvées dans le
"canal carotidien semblent confirmer cette opinion. Ainsi
"on ne peut guère révoquer en doute l'existence des ab"sorbans cerebraux, mais leur histoire anatomique est
"encore très-obscure." Bichat Anatomie descriptive,
continued by Buisson, vol. iv. p. 483. Bell's Anatomy,
vol. ii. p. 333. See also Haller, Monro, Mascagni, &c.
&c.

P. 98. The weight of the whole brain generally arrives at its maximum at the age of three years.] Vide Wenzel de Penitiorum struct. p. 254. A very good abstract of the investigation of the Wenzels will be found in Gordon's System of Anatomy, p. 172.

I am aware that this opinion of the Wenzels has been objected to by some eminent physiologists; if, however, the brain does not reach its full dimensions at the age of seven years, it must yet be allowed that it reaches its maturity so very early, when compared with the other parts of the body, as fully to justify the inference which I have drawn from the fact.

P. 100. The System of Gall and Spurzheim.] It must certainly be allowed, that this system does not of logical necessity terminate in materialism; upon the minds however of those who are unable to reason with precision, it will always have the practical effect of leading them into that doctrine. It is moreover a favourite hypothesis, and much encouraged by most of those who profess themselves materialists.

Ibid. Portions of the brain various in situation and size, have been found disorganized.] Two admirable articles appeared in the Edinburgh Review for 1815, the one

on a paper of Sir Everard Home, in the Philosophical Transactions, of 1814, the other on the system of Drs. Gall and Spurzheim. They were attributed, and rightly, I believe, to Mr. Gordon, of Edinburgh, one of the most promising of our young physiologists. The early death of this rising man has deprived the world of much sensible information and just reasoning upon these important points; if, at least, we may judge from the specimens which he has left behind him.

P. 101. An instance is indeed upon record of a child.] See the articles in the Edinburgh Review above mentioned.

P. 110. Then it is that he views human pursuits and objects.] I shall, perhaps, be pardoned by every reader who is a scholar, if I present him with an exquisite description of such a death-bed, from an author, whose beauties are but little known. It occurs in Aretæus, περὶ αἰτίων καὶ σημείων ὀξέων παθέων. Lib. I. cap. iv. edit. Wigan. p. 20.

φ. 20.

"Ψυχῆς κατάσθασις ἄισθησις σύμπασα καθαρή.

"διάνοια λεπθη, γνώμη μαντική προγιγνώσκουσι μεν

"όῦν πρώτιστα μεν έωυτέοισι τοῦ βίου την μοταλλαγην,

"ἔπειτα τοῖσι παρεοῦσι προλέγουσι τὰ ἀῦθις ἐσό μενα.

"Οι δὲ ἀυτέοις μὲν ἔσθ' ὅτε καὶ ἀλλοφάσσειν δοκέ
"ουσι, τῆ ἀποβάσι δε τῶν ἐιρημένων θαυμάζουσι

"ὥνθρωποι Μετεξέτεροι δὲ καὶ προσλαλέουσι τῶν

"κατοιχομένων τισὶ, τάχα μὲν παρέοντας ὁρεῦντες

"ἀντὸι μοῦνοι ὑπο λεπθης κὰι καθαρης ἀισθήσιος,

"τάχα δ ἀύτου τῆς ψυχῆς προγιγνωσκόυσης κὰι διεη"γευμένης τούς ἄνδρας ὁῖσι ξυνέσονται Πρόσθεν μὲν

"γὰρ ἐν ἱλύϊ [τοῖσιν ὑγροῖσιν] ἔην καὶ ζόφω ἐπεὶ δὲ

" τάδε εξήντλησε ή νούσος, και από των οφθάλμων

- ι την άχλυν έλεν, ερέουσι τά τε έν τω ήερι, καὶ
- " γυμνη τη ψυχη γίγνονται μάντιες άτρεκέες" 'Οι
- « δὲ ἐς τοσόνδε λεπίστητος ύγρων και της γνώμης αφιγ-
- " μένοι ου μάλα τοι περιγίγνονται, έξηερωμένης ήδη
- " της ζωτικής δυνάμιος"

The text is not quite correct; l. 14, αὖτου, should be read αὐτων, or αὐτης; l. 17, τοῖσιν ὑγροῖσι, appears to have crept into the text, as a gloss upon 'ιλύϊ.

- P. 115. Working to some ultimate purpose.] See Bishop Butler's admirable chapter upon "a state of pro"bation, as intended for moral discipline and improve"ment." Analogy, p. 98.
- P. 117. These arguments might be considerably enlarged upon.] See Baxter on the Soul, p. 107; where this part of the subject is treated in a very full and masterly manner.
- P. 120. The death-bed of Voltaire.] See Memoirs of Jacobinism, by the Abbe Barruel, vol. i. p. 346. See also Historical Dictionary. Article D'ALEMBERT.
- P. 123. Generation, as Paley has well remarked.] Natural Theology. p. 455.

THE END.

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this part of the subject is treated in a very full and masterly

val Theology, p. 455.







