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RELATION

BETWEEN

RELIGION AND SCIENCE.

BY

GEORGE COMBE.

"If there be a Religion of Nature, and we believe there is, we conclude that there can be no religion but truth, and no heresy but falsehood."—*Edinburgh Review*, vol. lxxxii., p. 56.

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P R E F A C E.

The following Pamphlet is intended as a Sequel to “Remarks on National Education” by George Combe.*

Two questions are considered in the following pages—What is the state of practical religion in this country? and What is the remedy for its present condition? In regard to the first point, I beg to adduce the testimony of the North British Review for February 1847. In an article in that Number, generally ascribed to the Rev. Dr Chalmers, and bearing all the characteristics of his style, it is said that “As things stand at present, our creeds and confessions have become effete, and the Bible a dead letter; and that orthodoxy which was at one time the glory, by withering into the inert and lifeless, is now the shame and reproach of all our churches.” (vol. vi., p. 326.) Again, “There must be a most deplorable want amongst us of “the light shining before men,” when, instead of glorifying our cause, they (men like Thomas Carlyle) can speak, and with a truth the most humiliating, of our inert and unproductive orthodoxy.”—P. 328.

This representation is even stronger than that which I have ventured to give of the same subject in the following pages; and it is some advantage to start with so distinct a recognition, and from so high an authority, of the “great fact,” that the present state of practical religion in this country is not satisfactory. The remedy suggested in the Review is widely different from that which is here advocated; but the public are the legitimate judges of the merits of the several proposals.

EDINBURGH, 1st May 1847.

* *Third Edition.* Price Threepence. Same Publishers as on this title-page.

ON THE
RELATION BETWEEN RELIGION AND SCIENCE.

BY
GEORGE COMBE.

The Reformation in the sixteenth century produced a powerful effect on the European mind. The miracles, precepts, and sublime devotional effusions of the Old and New Testaments, excited, with deep intensity, the religious sentiments of the people, introduced ardent discussions on temporal and eternal interests, and, unfortunately, led to furious and desolating wars. Freedom on earth, and salvation in heaven or perdition in hell, were the mighty topics which then engaged public attention.

In the beginning of the seventeenth century, a generation born and educated under these exciting influences, appeared upon the stage. The Reformation was then consummated, but the duty remained of acting it out in deeds. The new generation had read in the Books of the Old Testament of a people whose king was God; whose national councils were guided by omniscience, and whose enterprizes, whether in peace or war, were aided and accomplished by omnipotence employing means altogether apart from the ordinary course of nature. The New Testament presented records of a continued exercise of similar supernatural powers; and the great lesson taught in both seemed, to that generation, to be, that the power of God was exercised as a shield to protect, and an irresistible influence to lead to success and victory in secular affairs, *those who believed aright*, who embraced cordially the doctrines revealed in the sacred volumes, who abjured all self-righteousness and self-reliance, and who threw themselves in perfect confidence and humility on Him as their King, protector, and avenger.

In the first quarter of the seventeenth century, the active members of society in England and Scotland, embraced these

views as principles not only of faith but of practice. With that profound earnestness of purpose which is inspired by great ideas, they desired to realize in deeds what they believed in their minds. As remarked by Thomas Carlyle, that generation “attempted to bring the Divine law of the Bible into actual practice in men’s affairs on the earth.” In the contests between Cromwell and the Covenanters, we observe both parties claiming to be “the people of God;” both asserting that they were directed by Divine influence, and supported by Divine power, even when in hostile collision with each other. It is necessary only to read attentively Cromwell’s letters and speeches, and the contemporary narratives of the Covenanters, to be satisfied of this fact. Each party ascribed its successes to the Divine approval of its conduct and belief, and its calamities to displeasure with its unbelief or other sins. When Cromwell overthrew the Scotch, and “had the execution of them,” in other words, the slaughter of them, for many miles in the pursuit, he called it “a sweet mercy,” vouchsafed to him by God, to whom he devoutly ascribed the glory. After mentioning his victory at Dunbar, the trophies of which were about “three thousand Scotch slain,” “near ten thousand prisoners,” “the whole baggage and train taken,” with “all their artillery, great and small,” he adds, “It is easy to say, The Lord hath done this. It would do you good to see and hear our poor foot to go up and down making their boast of God.”*

The Covenanters held the same belief; but, somewhat inconsistently, while they confessed that their own religious unworthiness had brought upon them the Divine displeasure, they denied to Cromwell the right to interpret the victory as a manifestation of the Divine approval of *his* faith, principles, and practice:—They endeavoured to represent it merely as “an event;” for which Cromwell rebukes them in the following words:—“You (the men of the Covenant) say that you have not so learned Christ ‘as to hang the equity of your cause upon events.’ We (for our part) could wish that blindness had not been cast upon your eyes to all those marvellous dispensations which God hath lately wrought in England. But did you not solemnly appeal (to God) and pray? Did not we do so too? And ought not you and we to think, with fear and trembling, of the hand of the Great God in this mighty and strange appearance of His; instead of slightly calling it an ‘event.’ Were not both your and our

* Letter XCII., Cromwell to Lenthal, dated, “Dunbar, 4th September 1650.” (Carlyle’s *Cromwell*, vol. ii., p. 41.)

expectations renewed from time to time whilst we waited upon God, to see which way He would manifest himself upon our appeals? And shall we, after all these our prayers, fastings, tears, expectations, and solemn appeals, eall these bare ‘events?’ The Lord pity you.”*

While the people of that age entertained these views of the manner of God’s agency in secular affairs, they were equally convinced of the supernatural agency of the devil, and with similar earnestness acted on this conviction. They ascribed to satanic influence on their minds their sins of unbelief, and carried their horror of him into practical effect by burning thousands of human beings as witches, for supposed compacts with the fiend. This belief lingered among the Scotch people a century later. In February 1743 the “Associate Presbytery” of the Secession Church passed an “Act for renewing the National Covenant,” and among other national sins which they confessed and vowed to renounce is mentioned, “The Repeal of the Penal Statutes against Witchcraft, contrary to the express laws of God, and for which a holy God may be provoked, in a way of righteous judgment, to leave those who are already ensnared to be hardened more and more, and to permit Satan to tempt and seduce others to the same wicked and dangerous snare.”

These were the views of God’s providence entertained by the religious men of the seventeenth century. Those who were not penetrated by a deep sentiment of religion acted then, as the same class does now, on the views of the order of nature with which their own experience and observation, aided by those of others, had supplied them. They did not trouble themselves by much inquiry whether this order was systematic or incidental, moral, or irrespective of morality; but acted as their views of expediency dictated at the moment. It is with the opinions of the religious and earnest men of that century that we are now principally engaged.

In commenting on that period, Thomas Carlyle observes, in his own quaint style, that “the nobility and gentry of England were then a very strange body of men. The English squire of the seventeenth century clearly appears to have believed in God, not as a figure of speech, but as a very fact, very awful to the heart of the English squire.” He adds, “We have wandered far away from the ideas which guided us in that century, and, indeed, which had guided us in all preceding centuries; but of which that century was the ulti-

* Letter XC VII., Cromwell to “The Governor of Edinburgh Castle,” dated “Edinburgh, 12th September 1650.” *Lib. cit.*, vol. ii., p. 65.

mate manifestation. We have wandered very far, and must endeavour to return and connect ourselves therewith again."*

I ask, How shall we return? This is a grave question, and the answer demands a serious consideration.

The grand characteristic of the Jewish dispensation, on which chiefly these views of the Divine government of the world were founded, was, that it was special and supernatural. In the seventeenth century there was very little of correct scientific knowledge of the elements, agencies, and laws of inorganic and organic nature abroad in society. The Scriptures constituted almost the sole storehouse of deep reflection and profound emotion for the men of that age; and in the absence of scientific knowledge, they fell naturally into the belief that, as the Scriptures were given for guides to human conduct, the same scheme of Providence, physical and moral, which had prevailed in ancient times, must still continue in force. Their conviction on this point appears to have been profound and sincere, and they attempted to act it out in deeds.

But was there no error of apprehension here? Were they not mistaken in believing that the course of providence was the same in their day as it had been in the times of the Scripture records? A brief consideration of their actions, and the results of them, will perhaps throw light on this topic.

They assumed that the supernatural agencies which had been manifested under the Jewish dispensation might still be evoked, and would, in some form or other, be exerted for their guidance and support, if they called for them in a proper spirit. Hence, instead of studying and conforming to the laws of nature, they resorted to fastings, humiliations, and prayers, as practical means not only of gaining battles and establishing political power, but of obtaining direction in all the serious affairs of life. Their *theology* and their science, so far as they had any science, were in harmony. They did not recognise an established and regular order of nature as a guide to human conduct, but regarded every element of physical nature, and every faculty of the human mind, as under the administration of a special and supernatural providence. They viewed God as specially bending all the powers and processes of human nature and of thought to the direct fulfilment of His will; *and on that will they believed they could operate by religious faith and observances.* In principle, their view of the nature of the divine administration of the

* *Lib. cit.*, vol. i., pp. 3 and 87.

world was similar to that entertained by the Greeks and Romans. Homer's priests and heroes offered supplications to the gods for direct interference in favour of their schemes, and their prayers are represented to have been occasionally granted. Cromwell, and the men of his age, with more true and exalted conceptions of God, still believed in His administering the affairs of men, not by means of a regular order of causes and effects, but by direct exercises of special power.

In this condition of mind I should say that they were inspired by pure and exalted religious emotions, but misled by great errors in theology. There is a wide difference between religion and theology. Religion consists in the devotional emotions which spring up in the mind, on contemplating an object which we have been trained to reverence. "Theology," on the other hand, is used to designate the intellectual notions which we form concerning that object. Hence the untutored Indian, the Mahomedan, and the Hindoo, when they sincerely venerate and worship the objects which they have been taught to regard as divine, are *religious*; although their "theology" may be altogether erroneous. In like manner, the English and Scotch Independents and Presbyterians of the first half of the seventeenth century, were earnestly and profoundly *religious*, although their theological ideas may appear to later generations to have been at variance with nature and truth.

It was, however, under the influence of such views of the course of providence as they entertained, that the existing standards of the Church of England, and the Presbyterian Church of Scotland, were framed; and hence perhaps arose the very meagre recognition of God's providence in the course of nature, as a practical system of instruction for the guidance of human conduct, which characterises them.

After that age, however, the human understanding, by a profounder and more exact study of nature, obtained a different view of the course of providence in the administration of temporal affairs. Science revealed a system in which every object, animate and inanimate, appears to be endowed with peculiar qualities and agencies, which it preserves and exerts with undeviating regularity, as long as its circumstances continue unchanged; and in which each object is adapted, with exquisite wisdom and benevolence, to the others, and all to man. In the words of the Rev. Mr Sedgwick, science unfolded a fixed order of creation, so clear and intelligible that "we are justified in saying that, in the moral as in the physical world, God seems to govern by general laws."—"I am not now," says he, "contending for the doc-

trine of moral necessity ; but I do affirm, that the moral government of God is by general laws, and *that it is our bounden duty to study those laws, and, as far as we can, to turn them to account.*"*

Here, then, an important revolution has been effected in the views of profound thinkers, in regard to the mode in which Providence administers this world. Science has banished from their minds belief in the exercise, by the Deity, in our day, of special acts of supernatural power as a means of influencing human affairs, and it has presented a systematic order of nature, which man may study, comprehend, and obey, as a guide to his practical conduct. In point of fact, the new faith has already partially taken the place of the old. Men now act more on the belief that this world's administration is conducted on the principle of an established order of nature, in which objects and agencies are presented to man for his study, are to some extent placed under the control of his will, and wisely calculated to promote his instruction and enjoyment. The creed of the modern man of science is well expressed by Mr Sedgwick in the following words :—" If there be a superintending Providence, and if His will be manifested by general laws, operating both on the physical and moral world, *then must a violation of these laws be a violation of His will, and be pregnant with inevitable misery.* Nothing can, in the end, be expedient for man, *except it be subordinate to those laws the Author of Nature has thought fit to impress on his moral and physical creation.*" Other clergymen also embrace the same view. The Rev. Thomas Guthrie, in his late admirable pamphlet, " A Plea for Ragged Schools," observes, that, " They commit a grave mistake, who forget that injury as inevitably results from flying in the face of a moral or mental, as of a physical law."

Notwithstanding, however, this revolution in practical belief, the theology of the British nation has been permitted to retain the forms in which it was moulded in the olden time ; and what has been the consequence ? The natural order of providence is very meagrely taught by the masters in theology to their followers, as of divine authority, and as regulating this world's affairs. I put the following question in all earnestness. Are the fertility of the soil, the health of the body, and the prosperity of individuals and of nations,—in short, the great interests and duties of mankind,—governed by any regular and comprehensible natural laws, or are they not ? If they are

* A Discourse on the Studies of the University (of Cambridge). By Adam Sedgwick, M.A., &c., 3d Edition.

not, then is this world a theatre of atheism, it is a world without the practical manifestation of a God. If on the other hand, as I contend, such laws exist, they must be of divine institution, and worthy of all reverence; and I ask, In the standards of what church, from the pulpits of what sect, and in the schools of what denomination of Christians, are these laws taught to either the young or old as of divine authority, and as practical guides for conduct in this world's affairs? If such laws exist, and are not studied, honoured, and obeyed, as God's laws; and if belief in special acts of supernatural administration of the world has died away, are we not actually a nation without a religion in harmony with nature; and, therefore, without a religion adapted to practical purposes?

The answer will probably be made—that this argument is rank infidelity; but, with all deference, I reply that the denial of a regular, intelligible, wisely adapted, and divinely appointed order of nature, as a guide for human conduct in this world, is downright atheism; while the acknowledgment of the existence of such an order, accompanied by the nearly universal neglect of teaching and obeying its requirements, is true, practical, baneful infidelity, disrespectful to God, and injurious to the best interests of man. Let those, therefore, who judge us, take care that they be not judged; and let those who think that they stand, take heed lest they fall. The public mind is opening to such views as I am now unfolding; and they must in future be met by other arguments than cries of irreligion, and appeals to bigotry and passion.

The churches which have at all recognised the order of nature, have attached to it a lower character than truly belongs to it. They have treated science and secular knowledge chiefly as objects of curiosity and sources of gain; and have given to actions intelligently founded on them, the character of prudence. So humble has been their estimate of the importance of science, that they have not systematically called in the influence of the religious sentiments to hallow, elevate, and enforce the teachings of nature. In most of their schools the elucidation of the relations of science to human conduct is omitted altogether, and catechisms of human invention usurp its place.

Society, meantime, including the Calvinistic world itself, proceeds in its secular enterprises on the basis of natural science, so far as it has been able to discover it. If practical men send a ship to sea, they endeavour to render it staunch and strong, and to place in it an expert crew and an able commander, as conditions of safety, dictated by their

conviction of the order of nature in flood and storm. If they are sick, they resort to a physician to restore them to health, according to the ordinary laws of organization. If they suffer famine from wet seasons, they drain their lands; and so forth. All these practices and observances are taught and enforced by men of science and the secular press, as measures of practical prudence; but few churches recognise the order of nature on which they are founded, as a becoming subject of religious instruction.

On the contrary, religious professors have too often made war upon science, on scientific teachers, and on the order of nature, from the days of Galileo to the present time; and many of them still adhere, as far as the reason and light of the public mind will permit them, to their old doctrine of an inherent disorder reigning in the natural world. That disorder does prevail is undeniable; but science proclaims that it is to a great extent owing to man's ignorance of his own nature, and of that of the external world, and to his neglect of their relations. Many theologians do not recognise such views, but proceed as if human affairs were, somehow or other, still, in our day, influenced by special manifestations of Divine power. Mr Plumptre is reported, in the *Times*, to have lately said, in his place in Parliament, while discussing the existing famine in Ireland through the failure of the potato crop, that "He did not mean to enter at large into the question where the guilt, which had drawn down upon them this tremendous dispensation, lay—whether that guilt lay with the people or the rulers; but he could not help expressing what he considered to be a well-founded opinion, that the rulers of this country had deeply offended, by some acts which they had recently placed on the statute-book, and which, in his belief, were calculated to bring down the Divine displeasure on the land; but into this he would not enter."

It is conjectured that this Honourable Gentleman had in view the grant to the Roman Catholic College of Maynooth, or the repeal of the corn-laws, as the "act" "which, in his opinion, was calculated to bring down the Divine displeasure on the land." Be the acts what they may, the speech implied that, in his opinion, sin in the people, or in their rulers, had led to a special deflection of physical nature from the ordinary course, in order to produce a famine for the punishment of the offenders. In the olden time, eclipses were viewed as portentous announcements of Heaven's wrath against the sins of men; but the discovery of unswerving physical laws, by which the motions of the heavenly bodies are regulated,

and in virtue of which eclipses occur, has expunged that superstition from the civilized mind. Nevertheless, the same blind love of the wonderful and mysterious, which led our ancestors to quail before a natural and normal obscuration of the sun, leads the unenlightened mind in our day to seek for the causes of agricultural blights in sin, instead of in physical conditions presented to our understandings, as problems to be solved by our own industry and ingenuity, and to be then turned to account in avoiding future evils. On the other hand, many educated laymen, and also a number of the more enlightened among the clergy, whose scientific studies have produced in their minds a conviction of the steadfastness of the course of physical nature, have sought for the cause of the failure of the potato crop in some physical condition (unconnected with sin) of the plant itself, of the earth, the air, or the electrical fluids; which, if discovered, might in their opinion, enable husbandmen in future years to avert the calamity; and they have declined to recognise fasts, humiliations, and prayers, as means adapted, according to their views of the course of Providence, to avert the recurrence of the evil. Indeed, these observances, inasmuch as they mislead the public mind, in regard to its causes, are regarded by such persons as positive evils.

The Archbishop of Dublin, in his "Address to the Clergy and other Members of the Established Church, on the use and abuse of the present occasion," (the famine in Ireland in 1846-47,) says—

"But advantage has been taken of the existing calamity to inculcate, with a view to the conversion of persons whom I believe to be in error, doctrines which I cannot but think utterly unsound and of dangerous tendency, by arguments which will not stand the test of calm and rational examination. There are some who represent the present famine (as indeed they did the cholera some years back) as a divine judgment sent for the punishment of what they designate as national sins; especially the degree of toleration and favour shewn to the members of the Church of Rome. Now this procedure, the attributing to such and such causes the supposed divine wrath, is likely, when those of a different creed from our own are thus addressed, to be, by some of them, rejected as profane presumption, and by others *retorted*. When once men begin to take upon them the office of inspired prophets, and to pronounce boldly what are the counsels of the Most High, it is as easy to do this on the one side as on the other. Roman Catholics who are told that a pestilence or a famine are sent as judgments on the land for the toleration of Romanism, may contend that, on the contrary, it is the Protestantism that is the national sin. And without the evidence of a sensible miracle to appeal to, neither party can expect to convince the other.

"When Israel was afflicted with a famine in the days of Elijah, on

account of the idolatry of those of the people who had offended the Lord by worshipping Baal, the idolators might have contended that the judgment was sent by Baal against the worshippers of Jehovah, *had not* the prophet expressly denounced that judgment *beforehand*, and foretold both the commencement, and afterwards the termination, of the drought; besides calling down the fire from heaven upon the altar. This it is that enables us to pronounce that that famine was a divine judgment sent for the sin of Israel, and for *what* sin. And it is the same with the many similar cases that are recorded in Scripture. That Sodom and Gomorrah were destroyed on account of their abominable wickedness *we know, because Scripture* tells us so. And that Ananias and Sapphira were struck dead for tempting the Spirit of God *we know, and all present knew, because* the Apostle Peter announced beforehand their fate, and declared the crime which called it down. But for any uninspired man to take upon him to make similar declarations respecting any one of his neighbours who may die suddenly, or concerning any city that may be destroyed by a volcano or an earthquake, is as irrational and presumptuous as it is uncharitable and unchristian."

Unfortunately, however, the English clergy in general are not so far advanced in science as the Archbishop of Dublin, and they have afforded the nation a striking and painful illustration of the practical consequences which attend the enforcement of religious observances, based on obsolete principles. The Queen, under their advice, issued a proclamation, dated the 9th of March 1847, ordering a General Fast and Humiliation to be held on the 24th of that month, "in order to obtain pardon of our sins," and "the removal of those heavy judgments, ('scarcity and dearth of divers articles of sustenance and necessaries of life,') which our manifold sins and provocations have most justly deserved." This ordinance obviously proceeds on the assumption that the physical and organic laws of nature are actually administered, in our day, in the manner Cromwell and the Covenanters believed them to be in their age, not on regular principles of causation, but in special reference to the moral and religious merits of the people. Nevertheless, science has destroyed this belief in so large a portion of the public, that the Queen's proclamation, and the fast and humiliation, have been disregarded by millions of the people, and made subjects of pungent ridicule by a portion of the press. Among others, Douglas Jerrold, in his Weekly Newspaper of the 20th March, entertained his readers with grotesque representations of "the Fast-day at the Palace"—"in the fashionable world"—"in the House of Commons"—and "the Fast-day of the respectable man"—"of the middle classes"—and "of the destitute." His is not an infidel or irreligious newspaper, but one which has a wide

circulation among the middle as well as the lower classes. No more effectual means could be devised by the wit of man to destroy all seriousness of religious feeling in the nation, and all sacredness in their views of the manifestations of God's providence, than proclamations ordering Fasts which provoke ridicule; and apparently they owe their existence to the errors of the Church, which, in this instance, is the instigator of the Government. It chooses to remain behind the age in its theology,—and to expose religion, the Queen's authority, and itself, to public derision. The famine in Ireland unquestionably proceeded from Divine appointment, and taught a most solemn and instructive practical lesson to all reflecting men; but it must be viewed in a different light, and different deductions must be made from it from those which appear in the proclamation, before it can be invested with that solemnity and sacredness which really characterise it.

The Fast-day sermons present a striking illustration of the confusion of ideas which prevails in the public mind regarding the course of Providence in temporal events. Science confirms the declaration of Scripture, that God maketh "his sun to shine upon the evil as upon the good," and gives no countenance to the notion, that vegetable substances prosper or suffer directly in their growth, in consequence of the moral qualities of the men in whose fields they grow. On the contrary, it proclaims that their condition and productiveness depend on the soil, the heat, the moisture, the electric influences to which they are subjected, the manure and the seed, and on the skill with which these are brought to co-operate in yielding a return. The moral qualities of their cultivators may lead them to attend to, or neglect, the proper administration of these natural causes of fertility, in so far as they are subject to human control, and, by this means, indirectly influence the productiveness of the ground; but there is no warrant in science for believing, that if all the natural conditions of fertility be present, a blight will nevertheless pass upon the crop because of the owner's general or particular sins; or, *vice versa*, that if these natural conditions be absent, God will nevertheless send a rich harvest in reward of the owner's piety and charity. In the Fast-day sermons, however, little attention was paid to consistency on this point. In some of them, the potato failure was ascribed directly to sin; and, stranger still, not to sin in the owners of the fields, who suffered the loss, but in their rulers, or in somebody else over whose conduct the suffering peasants had no control. This doctrine implied that the course

of Providence is still special and extra-natural. Other preachers acknowledged only a natural Providence in the blight; while many others spoke as if Providence, in some instances, observed the fixed relations of cause and effect, and, in others, set them all aside.

It is impossible that the public mind can advance in sound and self-consistent practical principles of action in this world's affairs, while such conflicting views of science, religion, and the course of God's Providence, are poured forth from the pulpit and the press; and it is equally impossible that the youthful mind can be trained to study, reverence, and obey the course of God's Providence, while it is treated with so little consideration by those who assume to themselves the character of the accredited expositors of the Divine Will.

The questions, then, whether there be an intelligible course of nature revealed to the human understanding, whether it should be taught to the young, and whether the religious sentiments should be trained to venerate and obey it as of Divine institution, are not barren speculations respecting dogmas and doctrines. They touch a highly momentous practical principle. While an impassable gulph stands between the views of God's Providence, on which society in its daily business acts, and the religious faith which it professes to believe, the influence of the latter on social conduct must necessarily be feeble and limited. It is a matter of great importance to have the principles of action and of belief brought into harmony. Nothing can retard the moral and intellectual advancement of the people more thoroughly than having a religion for churches and Sundays, and a widely different code of principles for everyday conduct; and yet this *is*, and *must continue to be*, the case with all the Christian nations, while they fail to recognise the order of providence in nature as a divinely appointed guide to human action.

A second reformation in religion is imperatively called for, and is preparing. The new Christian faith will recognise man and the natural world as constituted by Divine Benevolence and Wisdom, and adapted to each other for man's instruction and benefit. It will communicate to the young a knowledge of that constitution and its adaptations, as the basis of their religious faith and practice in reference to this world; and train them to realize in their own minds and bodies, and in the society to which they belong, *the natural conditions* on which health, prosperity, purity, piety, and peace, depend. Only then will they discover that Christianity is the true fountain, not only of religious faith, but of practical

wisdom and of individual and social improvement. Until this discovery shall have been made and acted on, religion will never exert its due influence over human affairs.

Thomas Carlyle, in treating of the opinions of the seventeenth century, observes, that “the Christian doctrines which then dwelt alive in every heart, have now in a manner died out of all hearts,—very mournful to behold; and *are not the guidance of this world any more.*” This is literally true in the sense in which I have explained the fact; but in all other respects it is erroneous. The Christian doctrines with respect to faith in the atonement of Jesus Christ, devotional worship, and practical charity, are as much alive in the hearts of the present generation, as they ever were in those of any preceding age. It is only in regard to the special supernatural agency of God in this world, that the belief of the seventeenth century has practically gone out. It has not been abandoned in direct terms; on the contrary, it is retained in the standards and instructions of the churches; and is embraced, or attempted to be embraced, in the minds of many individuals; but, in point of fact, it is no longer felt to be a reality by modern enlightened Christians.

“Nay, worse still,” continues Mr Carlyle, “*the cant of them does yet dwell alive with us*; little doubting that it is cant.” With the *ignorant*, it is *not* cant, but a sincere, although a sadly confused belief. The strong-minded and well-informed men who have abandoned the ancient faith, are *wrong* in supposing that it is cant in their weaker brethren. They are themselves to blame for not honestly disabusing them, and informing them that the belief of the seventeenth century was, in this particular, a mistake, and that it no longer constitutes a practical rule of action. Mr Carlyle proceeds, “*In which fatal intermediate state, the eternal sacredness of this universe itself, of this human life itself, has fallen dark to the most of us.*” This is literally true. The religious sentiments are not permitted practically to recognise God’s administration in the ordinary course of nature, as of Divine authority for the guidance of human conduct. We really *are* in the intermediate state here described. The old belief *has* died away, and our churches scowl upon the new belief, which perhaps may help to restore “the eternal sacredness of this universe itself, and of this human life itself.”

In Germany, which led the way in the Reformation, the same truth has forced itself on the attention of religious men. Dr Tholuck, professor of theology in the university

of Halle, who is well known in this country as a distinguished evangelical Protestant divine, remarks :—

“ We live in an age when mankind is particularly rich in means to render the elements and nature subservient to their will. We live in a time when the individual becomes every day more independent of restraining power; and if in the same measure in which this might, and dominion, and richness in means, increases, the fear of God, and the consciousness of dependence on him, decreases more and more; when all these gifts and all these means, instead of being used in the service of God, and of his kingdom, are used in the service of selfishness and our own enjoyment; when man, through this dominion, becomes day after day, more free from earthly restraints, but each day more and more a slave to his earthly passions; when blinded man builds altars, and sings praises to his own skill and wit, instead of to his Heavenly Father, from whom cometh every good and perfect gift—oh! have not even the ancients foretold, what must become of such a generation in that wonderful fable of the daring of Prometheus, who, with violent hands stole from heaven its vivifying fire? What we here speak of is no anxious dream, no unreal imagination; no! *undeniable is the existing tendency in this generation, to consecrate the temple which our pious forefathers reared to their Father in heaven, to man, the fleeting son of an hour.*”*

Who is to blame for this forgetfulness of God by the cultivators of science, but the churches who have omitted to teach the sacred character of Nature, and to acknowledge her instruction as Divine?

To those whose understandings have embraced the views which I am now advancing, and whose religious sentiments have been interwoven with them, “this eternal sacredness” stands forth in all the beauty, brightness, and intensity, which it ever possessed in the minds of the men of the seventeenth century. Mr Carlyle adds, “We think *that* too,” (viz. the “sacredness of the universe,”) “*cant and a creed.*” Yes—men of science, whose religious sentiments have never been led to recognise the Divine adaptations in nature as proclamations of the Divine will and attributes, but who have pursued their investigations from intellectual or interested motives alone, *do* regard the views which I am now advocating as “*cant and a creed.*” To such individuals I can only say that the religious sentiments exist in man; that the experience of all ages shews that they will cling to some object, and manifest themselves in one form or another; and the question is—Whether their legitimate direction in reference to this world is not to-

* A Selection from the University Sermons of Augustus Tholuck, D.D., &c p. 181. London, Seeley, 1844.

wards the great Designer of the universe, and his adaptations of nature in reference to human improvement and enjoyment?

If we can persuade the people that the course of nature, which determines their condition at every moment of their lives, “is the design—law—command—instruction, (any word will do,) of an all-powerful, though unseen Ruler, it will become a religion with them; obedience will be felt as a wish and a duty, an interest and a necessity.” The friend from whose letter I quote these words, adds, “But can you persuade mankind thus? I mean, can you give them a *practical conviction*?” I answer,—In the present unsatisfactory condition of things, the experiment is, at least, worth the trying; not with a view to questioning the importance of Scripture teaching; but for the purpose of communicating to its precepts in relation to practical conduct in this world, a basis also in nature, and investing the ordinary course of providence with that degree of sanctity and reverence which can be conferred on it only by treating it as designedly calculated to instruct, benefit, and delight the whole faculties of man. Whatever objections may exist against this proposal, something is needed to reconcile religion and science; for, as Mr Carlyle remarks, “the old names suggest new things to us,—not august and divine, but hypocritical, pitiable, and detestable. The old names and similitudes of belief still circulate from tongue to tongue, though now in such a ghastly condition: not as commandments of the living God, which we must do or perish eternally; alas, no, as something very different from that.”

This representation of our present condition is unfortunately too true, and we can scarcely fall into a more helpless, hopeless, and embarrassed state, in regard to the relations between secular and religious instruction, than that in which we now exist. This consideration may be pleaded as an apology for endeavouring to try something new. I shall proceed, therefore, to adduce a few illustrations of the manner in which I conceive that the religious sentiments may be profitably employed in enforcing obedience to the order of Providence in nature; but before doing so, I beg to observe that some obscurity, which it is proper to remove, occasionally attends the use of the words, “Laws of nature.” A law of nature is not an entity distinct from nature. The atoms or elements of matter act invariably in certain definite manners in certain circumstances; the human mind perceives this regularity, and calls the action characterised by it, action according to law. But the term “law,” thus used, expresses nothing more than the mind’s perception

of the regularity. The word does not designate *the efficient cause* of the action; yet many persons attach a meaning to the term, as if it implied causation. The cause of the regularity which we observe in the motions and reciprocal influences of matter, may be supposed to be either some quality inherent in the atoms, or certain powers and tendencies communicated to them by the Divine Mind, which adapts and impels them to all their modes of action. This last is the sense in which I understand the subject, and I coincide in the views expressed in an article in the *Edinburgh Review*,* generally ascribed to the Rev. Mr Sedgwick.

“What know we,” says he, “of the God of nature (we speak only of natural means), except through the faculties He has given us, rightly employed on the materials around us? In this we rise to a conception of material inorganic laws, in beautiful harmony and adjustment; and they suggest to us the conception of infinite power and wisdom. In like manner we rise to a conception of organic laws—of means (often almost purely mechanical, as they seem to us, and their organic functions well comprehended) adapted to an end—and that end the well-being of a creature endowed with sensation and volition. Thus we rise to a conception both of Divine Power and Divine Goodness; and we are constrained to believe, not merely that all material law is subordinate to His will, but that He has also (in the way He allows us to see His works) so exhibited the attributes of His will, as to shew himself to the mind of man as a personal and superintending God, concentrating His will on every atom of the universe.”

I add that, in adopting Mr Sedgwick's phrase of “a personal God,” I use the word, “person,” according to Locke's definition of it, “a thinking, intelligent being, that has reason and reflection, and considers itself as itself, the same thinking thing in different times and places.” In this sense of the word, our faculties enable us to assign a personal character to the Deity, without presuming to form any opinions concerning His *form*, His *substance*, or His *mode of being*.

The key to the system of natural Providence appears to me to consist in a knowledge of the distinct agencies of nature and their results. Physical objects act in certain determinate modes, and produce certain invariable consequences; organic substances act in certain determinate modes, and produce also invariable effects; and each faculty of the mind, and function of the body, has its appointed constitution and mode of action, and it produces happiness or misery according as it is used or abused. General health, happiness, and prosperity, are the results of our habitually acting in confor-

* Vol. lxxxii., p. 62, July 1845.

mity with the several ordinations of nature, each communicating its own pleasures or pains, independently of the others, but all being in harmony among themselves, and with the nature of man.

These views have now been submitted for twenty years to public consideration, in "The Constitution of Man," and more recently in my "Lectures on Moral Philosophy," to which I beg leave to refer. The Calvinistic press and pulpit have, at intervals, made war upon them; but the only plausible objection which I have seen stated to the general doctrine contained in them, is, that circumstances occasionally occur in which it is virtuous to set the physical and organic laws at defiance;—as when a man rushes into the water to rescue a drowning fellow-creature, or on a railroad-track, in order to remove from it a child or deaf or blind person, who, but for such assistance, would be smashed to pieces by an advancing train. The benevolent agents in such enterprizes occasionally lose their own lives, either saving, or not, those of the objects of their generous care; and it is argued, that in these instances, we applaud the self-devotion which set at nought the physical action of the waves and the train, and risked life to perform a disinterested act of humanity. But these cases afford no real exceptions to the doctrine which I have maintained, that even virtuous aims do not save us from the consequences of breaking the natural laws. A few explanations will, I hope, remove the difficulty apparently presented by these and similar instances. Unless the benevolent actors in these enterprizes are able successfully to encounter the waves and the train, there is little chance of their realizing their generous intentions or gaining the objects of their solicitude. Obedience to the physical laws until they succeed is indispensable, otherwise both they and their objects will perish, and the calamity will thereby be aggravated. If they save the object, but die themselves, there is no gain to society, but the contrary; the life lost is most probably more valuable than the one saved.

No man, therefore, is justifiable in leaping into the water even to rescue a fellow-creature, unless he be confident that, by his skill in swimming, or by mechanical aid at his command, he can comply with the physical law which regulates floatation. If he do go into the flood deliberately, and in the consciousness that he cannot comply with the conditions of that law, he commits suicide. If, under the impulse of generous emotion, he plunges into the water, miscalculating his power, and is overcome; although we may admire and applaud his humane intention, we must lament the mistake he

made in the estimate of his own ability. In the case of the railway train, if the generous adventurer, after removing his fellow-creature from the rail, is himself overtaken by the engine and killed ; while we give the tribute of our esteem to his humanity, we must regret his miscalculation. In no case, therefore, is it justifiable, as a general rule, to set the physical laws at defiance.

The objection to the doctrine of the natural laws, founded on these cases, appears to me to arise from a misunderstanding of the sense in which I use the word "punishment." The dictionary definition of *punishment* is "infliction imposed in vengeance of a crime ;" but this is not my meaning. The inflictions under *human laws* have no natural, and therefore no necessary, relation to the offence they punish. There is no natural relation, for example, between stealing and mounting the steps of a tread-mill. When, therefore, I am represented as teaching that, in these instances, the benevolent agent is "punished" with the loss of life, for acting under the impulse of his moral emotion, those who understand the word "punish" in the dictionary sense, are shocked, and reject the doctrine as unsound. But the difficulty disappears when the word is differently defined. By punishment, I mean the natural evil which follows the breach of each physical, organic, and moral law. I regard the natural consequence of the infraction, not only as inevitable, *but as pre-ordained by the Divine Mind*, for a purpose : That purpose appears to me to be to deter intelligent beings from infringing the laws instituted by God for their welfare, and to preserve order in the world. When people, in general, think of physical laws, they perceive the consequences which they produce to be natural and inevitable ; but they do not sufficiently reflect upon *the intentional pre-ordainment* of these consequences, as a warning or instruction to intelligent beings for the regulation of their conduct. It is the omission of this element that renders the knowledge of the natural laws, which is actually possessed, of so little use. The popular interpretations of Christianity have thrown the public mind so widely out of the track of God's natural providence, that *His object or purpose* in this pre-ordainment is rarely thought of ; and the most flagrant, and even deliberate infractions of the natural laws, are spoken of as mere acts of imprudence, without the least notion that the infringer is contemning a rule deliberately framed for his guidance by Divine wisdom, and enforced by Divine power.

In considering *moral* actions, on the contrary, the public mind leaves out of view *the natural and inevitable*. Being accustomed to regard human punishment as arbitrary, and capable of abeyance or alteration, it views in the same light

the inflictions asserted to take place under the natural moral law, and does not perceive *divine pre-ordination and purpose* in the natural consequences of such moral actions. The great object which I have had in view in "The Constitution of Man," is to shew that this notion is erroneous; and that there is a natural pre-ordained consequence, which man can neither alter nor evade, attached to the infringement of *every* natural law.

To express this idea correctly, a term is required, something between simple "consequence" and "punishment." The former fails to convey my idea in its totality, and the latter adds something to distort it. I find it difficult to discover an appropriate word; but hope that this explanation will render the idea itself comprehensible.*

Believing, then, that this world is governed by physical, moral, and organic laws, appointed by Divine power and wisdom, and pre-ordained as guides to human conduct, I select from physiology an illustration of the practical application of this proposition.

Science enables us to discover that the Author of Nature has assigned a certain constitution, and certain functions, to the human lungs. The chief use of the lungs is to purify and vitalize the blood; and the blood is the grand fountain of nourishment to the bones, muscles, skin, nerves, and brain; in short, to the whole man. We are told in Scripture, and observation confirms the statement, that the organism of man is calculated to act for threescore years and ten, and during that period to afford enjoyment to the intelligent and sentient principle resident within it. But Divine Wisdom has appointed *certain conditions*, on the observance of which the organism will continue successfully to perform its functions, and on the infringement of which it will either become impaired or altogether cease to act. These conditions are, to a great extent, cognizable by the human intellect, and constitute *the terms* on which the boon of health and life is presented to man; it being left in his option to accept and fulfil them, or to reject and infringe them, as he pleases: only, certain consequences are pre-ordained to follow each specific course of action; and these he must abide by, whether he will or not. One of these conditions is; that he shall

* The admirable expositions of Natural Theology by Paley, and in the Bridgewater Treatises and other similar works, have not been generally applied to practical purposes; and the reason may be found in their not recognising the distinct consequences attached to the breach of the several natural laws, as instituted, and pre-ordained to serve as guides to human conduct.

breathe the atmosphere in that state in which God has prepared it and adapted it to the lungs and blood. A combination of oxygen, nitrogen, and carbonic acid gas, in certain definite proportions, exists in the air, and is exquisitely adapted to our frame. A great increase or diminution of the proportions of any one of these, or the introduction of certain other gases, is fatal to health, and eventually to life itself.

Regardless, however, of this Divine arrangement, the inhabitants of Exeter, Liverpool, and many other towns, have, through ignorance and indolence, allowed the exhalations of decaying animal and vegetable matter to mingle with that compound atmosphere adapted by nature to their lungs and blood, and the consequence has been that many of them have suffered from disease, and prematurely died. On the 8th of December 1846, a public meeting was held at Exeter, "to consider the sanitary condition of that city." The Mayor was in the chair, and among the persons present were Viscount Ebrington, Sir J. Duckworth, M.P., Edwin Chadwick, Esq., Dr Southwood Smith, &c. A report was read by Mr Terrell, which "analysed the mortality of Exeter, and shewed that while the deaths in those parts of the city where there was good sewerage and an ample supply of water were from 1.83 to 1.93 per cent. (per annum), in other parts, where the drainage was deficient, the mortality was 5 to 7 per cent." Mr Chadwick observed, that in infancy, "life is more susceptible than at any other period—infants, as it were, live more on air." "Now what is the mortality at Exeter compared with Tiverton? I find that while one child out of every ten born at Tiverton dies within the year, and one-tenth is the average of the county,—one in five dies at Exeter. And then, after its escape of the first year's mortality, it has not gone through all its chances. I find, farther, that while, in Tiverton, *twenty-six* per cent. die under the age of five years, in Exeter no less than *forty-five* per cent. die under the age of five years."

When we trace these effects to their causes, is it not clear that that purity of the atmosphere which, by the appointment of the Author of Nature, is necessary to the support of life, had been destroyed by foul exhalations; that the human intellect was capable of discovering and removing the sources of that corruption; and that it was a duty which the inhabitants of Exeter owed equally to God and to themselves, to apply the whole powers of their understandings and will to comply with the conditions of life? Can there be a more becoming theme for the combined exercise of the intellect

and religious sentiments than that which is presented by such occurrences as these, in which the voice of nature calls aloud on parents to save their children by yielding obedience to the Creator's laws? Yet what occurs? Mr Chadwick informs us. "Well," says he, "here, in this city, in one of the healthiest counties of the kingdom, with an admirable site, and with all favourable circumstances, you have an infantile mortality and slaughter that very nearly follows—very closely indeed—upon the infantile slaughter of Spital-fields, &c."

The same gentleman mentioned that, "about three years ago, an epidemic raged in Glasgow, and there was scarcely a family, high or low, who escaped attacks from it. But at Glasgow they have an exceedingly well-appointed, well-ventilated prison; and in that prison there was not a single case of epidemic; and in consequence of the overcrowding of the hospitals, which killed some two thousand people, they took forty cases into the prison, and not one of them spread. In fact, there are so many classes of disease so completely within management, that medical men who have the care and custody of those who are in comparatively well-conditioned places, are in the habit of saying, in relation to cases in their private practice, 'Oh, if I had but that case in prison, I could save it.' Now, what has your mortality to do with that disease here in Exeter? I find that in Tiverton, while 23 out of 10,000 of the population are swept off by epidemic diseases, in Exeter no less than 103 are killed."

Here, then, we see a man of science, whose understanding is enlightened by the study of chemistry and physiology, clearly unfolding to the people of Exeter certain relations established by the Author of Nature between the composition of the atmosphere and the human body, in consequence of the infringement of which thousands of their fellow-citizens have perished prematurely. Yet these infractions of the laws of nature were allowed to continue, year after year, under the eyes of the Bishop of Exeter, unheeded and unrestrained. Not only so; but while his flock was thus dying from causes that were discoverable and removable, his Lordship was warmly engaged in denouncing, as irreligious, the Irish system of National Education, because it proposed to teach, under the name of secular instruction, unmingled with the leaven of the Thirty-Nine Articles of the Church, a knowledge of these very institutions of the Creator, a due regard to which would have enabled the people to save their own lives and those of their children! I do not doubt that he and his clergy duly consoled the dying, read

the burial-service over the bodies of the dead, and comforted the bereaved parents whose cherished offspring were thus prematurely snatched from them by the hand of death. All this was conformable to the Thirty-Nine Articles, which, when applied to their own legitimate objects, I desire to treat with respect. But if these mournful effects followed, by God's appointment, from causes which were cognizable by human intelligence, and removable by human skill, why did they shrink from teaching the people to reverence this connection, and to avoid the evils, by acting on the lessons which it was reading to their understandings? This would have tended in some degree to restore the sacredness of this universe and that earnestness of the human mind, the disappearance of which religious men so grievously deplore.

So far from acting in this manner, these excellent and estimable persons not only treat the order of creation and its lessons with neglect themselves, but by their cries of "infidelity" deter other men, who see and reverence its *sacredness*, from appealing to the nobler faculties of the mind with any practical effect in its behalf. What a soul-stirring theme did not the facts now detailed offer to Mr Chadwick and his brother philanthropists, for an appeal to the sentiment of Veneration of the people of Exeter, to induce them to bring these evils to a close! But no: science, divorced from religion, dared not to trespass on such a field. Unfortunately, also, in the minds of the suffering members of the Bishop's flock, there was no adequate knowledge of science on which to found an appeal to their religious sentiments. The speakers, therefore, could urge only the humbler motives of economy and prudence.

"Now," says Mr Chadwick, "while, amidst this population of the Tiverton district (32,499), in Tiverton 610 die, no less than 920 die in Exeter. That makes an excess of deaths due to Exeter of 332 deaths in the year. The *expense of a funeral* is certainly not less than L.5 on the average. Taking it at L.5, *your expenses in funerals*, for the excess of funerals compared with Tiverton during the year,

are	L.1600	0	0
Every case of death involves at least 29 cases of sickness, which at L.7 per case, is an annual expense of	9265	0	0
Besides that, you have a loss of labour of four years and eleven months by premature death, as compared with Tiverton, which, on the excess of this year's mortality, makes a sum, supposing wages to be 7s. 6d. weekly per adult, on the average (and a very low average), of	39,000	0	0

Making a total charge to this city of at least

L.49,865	0	0
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Say L.50,000 a-year. And that does not take into account anything for the loss of the maintenance of the children that have been swept away, nothing for the extensive amount of premature widowhood, for the large amount of orphanage, you will find burdening your charities."

This is a *truly English* argument, employed to induce a people suffering from gross infringements of the order of nature, to remove the causes of pestilence and death from their dwellings! I greatly err in my estimate of the mental faculties of Mr Chadwick, if he is not as deeply impressed with the "sacredness of this universe, and of this human life itself," as he is obviously alive to the emotions of benevolence; and if he would not have felt his power over his audience greatly increased, if he had found their understandings so far enlightened, that he could have ventured to appeal to their religious sentiments, to give weight and authority to his words. Not only, however, was the knowledge of nature wanting in them, but an appeal to it, in connection with the religious sentiments, might have been regarded by religious men as infidelity, while by some men of science, it would probably have been ridiculed as "cant and a creed." Such is the predicament into which the teaching of the order of nature as a guide to human conduct under the sanction of the religious sentiments, has been brought by English education! No *safe* course was left to Mr Chadwick, but the one which he pursued, that of addressing the *lower faculties* of the people—their acquisitiveness and fear!

I do not question the force of the arguments addressed to these faculties; because nature is so arranged, that when we depart from her paths in one direction, we are liable to fall into a multitude of errors, each accompanied by its own peculiar evils. Pecuniary loss is one of the natural consequences of bad health; but the consideration of that infliction is not one of the highest, or most efficacious motives for rousing a well educated people to energetic action, to remove from their hearths the causes of disease and death.

I select another example from Scotland. A report of the mortality in Edinburgh and Leith for the year 1846, lately published, presents the following results:—

The mean age at death of the 1st class, composed of gentry and professional men, was	43½ years.
The mean age at death of the 2d class, merchants, master tradesmen, clerks, &c.,	36½ years
The mean age at death of the 3d class, artizans, labourers, servants, &c.,	27½ years.

As I interpret this document, it is an intimation that these different classes have fulfilled, in widely different degrees, the *conditions* on which God proffered to continue with them the boon of life. We cannot imagine that He deals partially with man, and establishes one law for the rich and another for the poor: On the contrary, the structure of the various organs of the body on which life depends, is similar in all; and the composition of the atmosphere, the rays of light, and the winds of heaven, which affect these organs for good or evil, diffuse their appointed influences without the least respect of persons. To the circumstance, therefore, of obedience or disobedience to the organic laws, must these painfully different consequences be ascribed. Is it wrong to inquire into the nature of these conditions; to unfold them, when discovered, as valuable practical instruction to all these classes, and to appeal to their whole moral and religious sentiments to respect and observe them as Divine institutions, in order that the great gift of life may no longer be trampled by so many persons under foot?

I became desirous to learn how much of this instruction is communicated by the Established Church of Scotland, in their great normal seminary in Edinburgh, an institution in which several hundreds of children belonging to the third class of citizens are educated, and nearly one hundred teachers are instructed in the duties of their profession. It is partly supported by Government, and partly by the Church. On visiting the school, I was informed that physical science forms no part of the instruction given either to the pupils or to the student-teachers, unless a few chapters on natural philosophy and chemistry in one of their reading books, taught without apparatus and experiments, be entitled to that name. Nay, it was added, that lately Professor Johnston had voluntarily instructed the student-teachers attending the institution, in as much of the elements of practical chemistry as might have enabled them, when they became parish schoolmasters, to train their scholars in the rural districts to the analysis of soils, by which means they might have learned to cultivate their gardens and their fields with an intelligent perception of the laws on which fertility depends; but that this instruction had not been followed up. It formed no part of the course of study prescribed by the Church; many of the teachers saw no particular value in it; and when the Professor ceased to attend, it was entirely abandoned.

As a contrast, I find the following statement in the Twelfth Report of the Commissioners of National Educa-

tion in Ireland for the year 1845 :”—“ We have adverted in former reports to the importance of agricultural instruction. We have now five Agricultural Model Schools in operation, and we have undertaken to make grants towards five more, which have not as yet been established. There are also seven of the ordinary National Schools which have land annexed to them, and afford agricultural instruction.” This shews some degree of appreciation, in the Irish Commissioners, of the importance of teaching one department of the order of nature at least to the Irish children. They also report, that “ the principle is, and has been from the beginning, that the National Schools shall be open alike to Christians of all denominations !” In their Tenth Report, they assure us, that “ the tendency of the system is to produce peace, and that knowledge of men’s true interests, the want of which is so likely to lead to disaffection and crime.” This stands to reason ; but, nevertheless, *their* system, which teaches nature, has been stigmatized as “ godless ;” while that of the Church of Scotland, which omits it, is admired as a bright instance of sound religious education !

While schools under clerical guidance thus reject nature, the current in scientific channels runs in a different direction. Dr Symonds, physician to the Bristol Infirmary, in a letter published by him in the British and Foreign Medical Review for October 1846, remarks, that medical “ *art*, after all, is but Nature in a new form—a *fresh arrangement of the forces of Nature, compelling them to work under new conditions.*” He adds, “ I am not fond of arguments from final causes ; but can it be doubted that the various medicines we possess, *were, as such, a part of the plan of the universe designed to have a relation to morbid states of living organisms as much as esculent matters to healthy conditions ?*” If this view be sound doctrine, which it certainly is, are not both of these adaptations fit subjects for the reverential exercise of our religious sentiments, as well as for the investigation of our understandings ? At present the public attention is much interested by the application of sulphuric ether to produce insensibility to pain during surgical operations. This application of it is still under trial ; but should it ultimately prove beneficial, it will present another instance of the adaptation of physical elements to living organisms for benevolent ends.* It baffles

* Professor Simpson of Edinburgh has applied sulphuric ether to produce insensibility to pain in cases of difficult labour, hitherto with success. While it extinguishes sensibility for the time, it does not impede the muscular contractions which accomplish child-birth, and, in consequence, he recommends it to be used in cases also of natural labour. The benevolence and wisdom im-

our comprehension why this discovery (if it shall prove advantageous) was not made sooner; unless, perhaps, we conjecture that He who endowed the ether and the organisms with their properties and relations, and bestowed on man faculties capable of discovering them, meant him to use these faculties for his own advantage, and that the long reign of suffering has been the consequence of infidelity to Nature and Nature's God. Men, in past ages, did not believe in nature as a system adapted by Divine Wisdom to the human constitution and presented to them for their guidance; nor do they believe in it yet. According to my views, God does not send eclipses, earthquakes, or famines, to avenge this unbelief; but punishes each act of infidelity by pre-ordained deprivations of enjoyment, or pre-ordained evils which follow as the natural consequence of each act of omission or commission against his laws.

While science, as a practical guide to conduct, is thus excluded from these schools, the Shorter Catechism is sedulously taught; and it presents the following view of the order of nature, and of man's relationship to it, for the instruction of the young:

“When God had created man, he entered into a covenant of life with him, upon condition of perfect obedience: forbidding him to eat of the tree of knowledge of good and evil, upon pain of death.

“Our first parents, being left to the freedom of their own will, fell from the estate wherein they were created, by sinning against God.

“Sin is any want of conformity unto, or transgression of, the law of God.” (This definition would include all the laws of God; but, nevertheless, orthodox authorities in general regard a want of conformity unto, or transgression of, the laws of physical and organic nature, as acts only of imprudence or indiscretion.)

“The sin whereby our first parents fell from the estate wherein they were created, was their eating the forbidden fruit.

“The covenant being made with Adam, not only for himself, but for his posterity, all mankind descending from him by ordinary generation, sinned in him, and fell with him in his first transgression.

“The fall brought mankind into an estate of sin and misery.

“The sinfulness of that estate whereunto man fell, consists in the guilt of Adam's first sin, the want of original righteousness, and the corruption of his whole nature, which is commonly called original sin; together with all actual transgressions which proceed from it.

“All mankind by their fall *lost communion with God, are under his*

plied in such a pre-arrangement as this, if experience confirm it, appear calculated to excite admiration and gratitude in every well-constituted mind; nevertheless, I have heard this application of sulphuric ether, assuming it to be successful, objected to, as being a profane attempt to abrogate the primeval curse pronounced upon woman!

wrath and curse, and so made liable to all miseries in this life, to death itself, and to the pains of hell for ever.”

Here, probably, lies the grand obstacle to the blending of clerical with scientific instruction in education. Before the religious sentiments and the reflecting intellect of the people can be induced to reverence and obey the precepts of God addressed to them in the order of nature, they must be taught that nature is still such as God made it, and that it reflects wisdom and goodness in all its parts. There *can be no sacredness* in nature, if it be intrinsically disordered and out of joint. In studying it, we cannot come into communion with God, if through either its inherent derangement or our own natural obliquity of mind, His wisdom and goodness are *not* discernible in it; while if they *are* discernible, it cannot be justly said that man has lost communion with his Maker. If the divine adaptations in nature be calculated to raise and improve man as a moral, religious, and intellectual administrator of this world, he cannot be truly said to be under God’s “wrath and curse.”

Farther, if the teaching of the Old and New Testaments, in regard to human conduct in this world, depends, for its practical efficacy, on that teaching being in harmony with, and supported by, the order of nature,—then the foregoing representation of the physical and moral worlds, and their relations to each other and to God, are not only speculatively erroneous, but constitute positive and important impediments to the progress of Divine truth. They tend to blind the intellect, and mislead the moral and religious sentiments of the people, and thereby to retard their advance in practical wisdom, religion, and virtue.

I select the next example from Scripture. In the sacred volume we are told “to do justly, to love mercy, and to walk humbly with our God,” (that is, to obey His commandments). We are desired also to love our neighbours as ourselves, and to do unto them as we should wish that they should do unto us. Are these precepts *practical* in this world, or are they not? and what is implied in their being practical? Before they can become practical, it must be shewn that they are in harmony with, and supported by, the order of nature; that is to say, that nature is so constituted and arranged, that all the real interests of individuals and nations are compatible with each other, and that it is not necessary to rob and impoverish one to enrich another. Not only so, but that all injustice, oppression, and spoliation, being in opposition to the order of nature, must ultimately lead to evil and suffer-

ing to the perpetrator, or to those to whom he leaves the legacy of his spoils and his crimes. If such be the constitution of nature, then these precepts *are* practical. If, on the other hand, the order of providence admits of individuals and nations profiting by injustice and oppression, and reaching, and continuing to enjoy real prosperity and happiness through the systematic practice of crimes and violence, then are these precepts *not* practical in this world.

The history of all Christian nations shews that while they professed to believe in the Divine authority of the Scripture words, they were in a great measure sceptics as to their being supported and enforced by the order of nature. In their practical conduct towards each other, they have too often set them at defiance; nay, each has striven to depress, spoil, and ruin its neighbour, as the most effectual means of raising itself to independence and prosperity. But not one of the nations has succeeded in attaining its ends by these means. The history of England's treatment of Ireland affords an instructive lesson on this topic.

Six centuries ago, in the reign of Henry the Second, England conquered the sister isle, and ever since has continued to sway her destinies. From the first day of her conquest to our own times, English statesmen have acted towards Ireland on principles diametrically opposed to the injunctions of the New Testament. They insulted the feelings of the Irish, placed shackles on their industry, shut them out from many of the most valuable rights of British subjects, placed the religion of the majority out of the pale of the constitution, prohibited its professors, under pain of banishment for the first offence, and of death for the second, to act as schoolmasters or tutors in the instruction of their people; and when at last, in 1783, Ireland, in a moment of her strength, and of England's weakness, asserted her independence, and achieved a native legislature, English statesmen converted that legislature, by means of systematic corruption, into a new instrument of Irish injustice and oppression: England pursued this course notoriously with the view of providing for her own safety, prosperity, and power! Has she succeeded? No. A calm survey of her history will shew that from the first day of her oppression to the present time, every injury inflicted on Ireland recoiled on her own head; and that at this hour, Ireland is the source of her greatest weakness, anxiety, and suffering. She is paying eight millions sterling to save from starvation the victims of the system which she has pursued, and does not yet discern the end of the retribution which she has drawn upon her head.

During the whole period of this long crusade against the course of Providence and the precepts of Christianity, the rulers and people of England professed to believe in the Divine authority of the Scripture injunctions which they were trampling under foot; but they did not believe in their being supported by the order of nature. If they had believed in this, their conduct would have been as insane as that of men who should have sown corn in snow, and expected to reap a harvest from it in winter. They either formed no deliberate opinion of any kind regarding the course of Providence on earth, or considered it as arbitrary and mysterious; not cognizable by man, and not available as a guide to human conduct. Indeed, the great majority of Christian statesmen and people continue under the same belief or unbelief still. Lord Stanley lately presented, in a public document on convict treatment, a distinct expression of his conviction, that it is *not lawful* for man to adopt the order of nature as a guide to his conduct. Captain Maconochie had urged on his Lordship that "we cannot err in taking that model (viz. 'the discipline to which we are all subjected by Divine providence') for our guidance in our attempts to elevate the characters of our guilty, but yet more unhappy brethren." To which his Lordship answered, "I do not understand that it is permitted to us thus to constitute ourselves imitators of the Divine government under which we live; or that, in this respect, the march of infinite wisdom is to be followed by beings of so contracted a range of knowledge and foresight as we are."*

Lord Stanley and his predecessors certainly were not guilty of imitating the "march of infinite wisdom" in their convict management, but followed the counsels of their own will; and the result is now before the world. The transportation system is publicly acknowledged to have proved an utter failure, after costing hecatombs of human victims and millions of expense! It is, in future, to be abandoned. The men who saw and believed in an order of nature, predicted these issues from the beginning. Lord Bacon even denounced the natural consequences of the system as detrimental to humanity, and hundreds of voices have been raised against it from his age to ours. Nevertheless, statesmen, without inquiring into the causes of crime, the nature of criminals, or the adaptation of transportation to remove those causes and to improve that nature, proceeded in a course

* Parliamentary Paper on "Van Diemen's Land," ordered by the House of Commons to be printed, 9th February 1846, p. 11.

dictated by their own short-sighted preconceptions alone. The course of nature, however, could not be altered. Their measures were at variance with the pre-arranged adaptations of Providence; and nature triumphed, while they have recoiled, baffled and astonished. And this will ever be the case, until the “*sacredness* of this universe, and of this human life itself,” be practically recognised by those who wield the destinies of nations, as well as by those who are subject to their sway.

Another example of unbelief in the action of a moral providence in nature is afforded by the author of a recent able and eloquent pamphlet—“*The Case of Ireland stated by Robert Holmes, Esq.*” After detailing the wrongs of Ireland, the author speaks of “*moral force*” as a means of her deliverance, in the following terms. “*Moral force,*” says he, “*is a power, by the mere operation of reason, to convince the understanding and satisfy the consciences of those on whom the effect is to be wrought, that there is some particular moral act, within their ability to perform, which ought to be performed, and which it is their duty to perform; and, also, by the operation of the same divine principle only, making those free moral agents do the very thing required. The intended effect must be produced, and must be moral—the efficient cause must be moral, purely moral, unmixed, unadulterated, by any mean or sordid views; reason, heavenly reason, applied with eloquence divine; no threat, no intimidation, no cold iron, no ‘vile guns,’ no ‘villanous saltpetre digged out of the bowels of the harmless earth,’ nothing but the radiant illuminations of moral truth.*”—(P. 96.)

Mr Holmes considers this as a mere “*evaporation plan,*” adopted as a safety-valve to Irish discontent. “*It seemed,*” says he, “*to be considered by the expediency men of the day as a first-rate contrivance;*” but he regards it as pure “*fudge,*” and seems to prefer “*monster meetings,*” and displays of physical force, which may be used in case of need, as better calculated to accomplish “*repeal of the union,*” and the redress of Ireland’s wrongs. But Ireland has frequently tried to right herself by means of “*cold iron,*” “*vile guns,*” and “*villanous saltpetre,*” and with what success her present condition shews.* It is obvious that Mr Holmes

* I am no advocate of the doctrine of non-resistance. Organs of Combative-ness and Destructiveness exist in man, and they have legitimate spheres of activity, one of which appears to be to repel, by physical force, aggression which we cannot overcome by moral means.

does not comprehend the lessons contained in his own pamphlet, and is an unbeliever in the moral government of the world. He does not see that the advocates of justice to Ireland are backed not only by "the moral" but by the "physical force" of God's providence, in virtue of which they are able to demonstrate to England, that every sordid act which she has committed against Ireland has redounded in evil to herself, and that the scheme of creation is so thoroughly moral, so skilfully combined, and so unbendingly enforced, that the wisdom of all her statesmen, the counsels of all her bishops, and the voices of her whole people, will not suffice to turn aside the stream of suffering which she will draw upon herself, from every fountain of injustice which she has opened, and may hereafter open, in Ireland. What are the disappointments to avarice, the humiliations of baffled bigotry, the incessant consciousness of insecurity and weakness, and the lavish waste of treasure, which have followed from England's injustice to Ireland, but the sanctions of nature's moral laws, and the punishments which give reality and efficacy to the doctrine of "moral force?"

Mr Cobden and his coadjutors carried repeal of the corn laws by the use of moral force alone; but they understood its nature and sanctions; that is to say, they demonstrated to the religious public that free trade is implied in the Scripture precepts before quoted—to the moral public, that free trade is prescribed by the dictates of the sentiment of justice inherent in the human mind—to the merchant, manufacturer, and husbandman, that free trade is not only compatible with, and calculated to promote, their worldly interests, but that these cannot be permanently and systematically advanced by any other means. In short, they shewed that every attempt of every class to benefit itself by unjust monopolies and restrictions had ended in failure, and had been punished not only by defeating its own end, but by actually obstructing the attainment, through other and moral means, of the very objects which they were introduced to promote.

Unless all this be actually true, free trade cannot maintain itself even now when it is established; and it was the moral conviction that these views *are* true, that first inspired Mr Cobden with full confidence in the success of his agitation.

The advocates of "moral force," therefore, who see a moral government of the world established and enforced by God, wield not only "reason, heavenly reason," as an instrument for attaining justice, but "threats" and "intimidation;"—not the threats of "cold iron" and "vile guns,"

which may be employed in support of oppression and wrong as successfully as in vindication of right, but "threats" of evil from a power which no human sagacity can baffle, and no might withstand. Yet if the threats *be* real, and if the inflictions be as certain as fate, what a strange condition of mind must Christian men be in, when they imagine moral force to be a mere "evaporation plan," altogether unsupported, when not backed by "vile guns" and "villanous saltpetre!" Before, however, they can wield moral force with effect, they must be converted to a belief in the real, actual, and efficient government of the world by God's secular providence, and they must search for evidence of this government, and teach it to their countrymen. The creeds and confessions of churches must be revised and new-modelled into accordance with the order of nature, and the Christian precepts must be allowed the benefit of nature's support to give efficacy to their injunctions.

If the liberal members of the European community who desire to accomplish moral, religious, and political reforms, could be convinced of the reality of the moral government of the world, and take up this doctrine as the basis of their operations, no political tyranny, and no erroneous creed, could withstand their assaults. While they rely on guns and bayonets as their means of resisting misrule, they stand at a disadvantage, for these are equally available to defend error as to maintain truth; but when, abjuring these, they shall employ their higher faculties in discovering and demonstrating the combination of causes and effects, by means of which that moral government is actually carried into effect, they will become conscious of a strength before which error in every form will ultimately succumb.

Mr Holmes' blindness to the moral order of creation is evinced by another proposal which he advocates. While he admits that, during all the period of England's oppression, Irishmen were, in general, so destitute of moral principle, patriotism, and mutual confidence, that England, at all times, found among them willing tools to perpetrate her deeds of injustice, and Ireland never (except for a few months in 1782) found in her own population moral, intellectual, and physical resources sufficient to oppose or arrest them,—he looks to repeal of the Union, and the delivery of Irish affairs into Irish hands, as the only panacea for her sufferings and her wrongs. But if the view which I am now expounding be not a dream, Irish wrongs will never be righted until her destinies are swayed by a moral and enlightened legislature; and whether this shall hold its sittings on the one side of St

George's Channel or the other, will matter little to either country; for, as God's providence embraces both, and has rendered beneficence and justice the only road to permanent happiness and prosperity for either, that legislature will first redress her wrongs which shall first bow before the power of God, and enforce His laws as superior in wisdom and efficacy to any which their own selfishness and prejudices can substitute in their place.

The advocates of the inherent moral disorder of the world, however, will probably point to history and to the actual condition of the human race in every country of the globe, as affording demonstrative evidence that this supposed moral government is a dream. The past and present sufferings of mankind cannot be disputed; but I ask, In what age, and in what nation, have the religious instructors of the people been believers in an actual practical moral government of the world by God? Where and when have they expounded the natural arrangements by means of which this government is accomplished? And when and where have they directed the religious sentiments of the people to reverence and obey the natural laws as the roads that lead to secular virtue and prosperity? Ever since the promulgation of Christianity, has any nation discovered, and practically fulfilled the natural conditions by which the precepts of this religion are supported and enforced? Not one example is known of such conduct:—need we, therefore, be surprised at the results being such as history discloses and we perceive? The evidence of past and present experience certainly demonstrates that mankind, by shutting their eyes to the order of Providence in the world, by trampling the dictates of morality and religion under foot, and by seeking prosperity and happiness under the guidance of their selfish animal propensities, have never realized the objects of their desires; but it does not prove that no scheme of moral government adapted to their nature exists. It shews that they have not discovered such a scheme; but neither had they discovered the steam-engine, railroads, nor the effects of sulphuric ether, until a very recent date. They have been, and generally speaking continue to be, ignorant of their own nature;—of the adaptations of the external world to its constitution;—of the principles on which the order of nature is framed; and of their own capabilities of conforming to it; and hence many of their sufferings may be accounted for; but the requisite discoveries may be made, and indeed have been partially made, and all experience shews that human happiness has increased in proportion to obedience to the natural laws. The most in-

telligent, moral, and industrious nations are the most prosperous and happy; the most ignorant, idle, self-seeking, turbulent, and aggressive, are the most miserable and poor. These undeniable facts afford strong indications that a moral government of the world by natural laws exists; and if it does so, is not the discovery of its scheme an important study claiming the serious attention of man? I cannot too often repeat that unless the Christian morality be sustained and enforced by the order of nature, it is in vain to teach it as a rule of conduct in secular affairs. And how can this study be commenced and prosecuted, how can new truths be turned to practical account, except by reverencing Nature and her adaptations as Divine institutions—teaching them to the young—and enforcing them by the authority of the moral and religious sentiments? If man be a moral and intellectual being, it appears not to be inconsistent with this character to have constituted his mind and body and nature in harmony with each other, and to have left him, in the exercise of his discretion, to work out, to a considerable extent, his own weal or woe. The fact that he, through ignorance and the misapplication of his powers, has hitherto experienced much misery, affords no conclusive evidence, that by more extensive knowledge, and more strict obedience to the laws of his nature, he may not greatly improve his condition.

Assuming, then, for the present, that an order of nature, pre-ordained by God for the purpose of guiding human conduct, exists—that it is cognizable to a greater or less extent by the human understanding,—and that it is in harmony with, supports, and enforces, the practical precepts of Christianity,—I proceed to apply these assumptions to the subject of national education.

Science is an exposition of the order of Nature, and the order of nature is just another form of expression for the course of God's providence in the affairs of this world. The sciences of anatomy and physiology embrace systematic expositions of the course of providence in relation to health. Chemistry unfolds the course of providence in fertilizing our fields, and in placing the minute combinations of matter under our control as elements of utility and ornament. Natural philosophy describes the course of providence by which the stupendous universe of suns and worlds, stretching beyond the grasp even of our imaginations, is bound together and regulated; and unveils to us, through the microscope, the incomparable skill displayed in the structure of the minutest forms of animal and vegetable life. And, in the principles of mechanics, it teaches us the extent and the con-

ditions under which God has placed various motive powers of nature under our control. Phrenology unfolds to us the course of providence by which the health and vigour of the mind is regulated in connection with the body. In every cerebral organ which it accurately describes, it presents an instructive lesson for the guidance of human conduct regarding the sphere of activity, the uses and abuses, of the concomitant mental power. The science of moral philosophy founded on phrenology has for its object the exposition of the consequences attached by the course of providence to the use and abuse of every faculty of the mind and function of the body. Natural religion, using all this instruction as its basis, aims at investing every portion of the course of providence with a sacred character. It commands us to study it as a record of precious practical wisdom; to revere it as the counsel of the Most High, addressed to our intelligence and adapted to our wants; and to obey it as an indispensable condition to our attaining truth, purity, and intellectual elevation, with their concomitant blessings of health, happiness, and prosperity on earth.

These are named as a mere specimen of the sciences and their subjects. I admit that they are very imperfect, and that in many of them much error may be mixed up with truth. But this does not affect the question now under consideration. In so far as they contain any truth, that truth is Divine wisdom, addressed to man for his instruction and guidance. It merits the attention of his intellect and the respect of his religious sentiments; and therefore should be taught in schools.

In the standards of certain churches and sects there may be found a general and formal recognition of God's natural providence as a guide, more or less intelligible, to human conduct; but, nevertheless, no church and no religious sect with which I am acquainted has recognized the order of nature as the basis of the practical precepts which it teaches regarding secular conduct and duty; and not one of them has expounded that order even as the ally and support of Christianity. Not only so; but after mentioning in general terms God's natural providence as a guide to human conduct, not one of them proceeds, in its formularies, to shew *how* natural providence acts, in producing good or evil to man. Science, as I have said, attempts to do this; but many religious men denounce the teaching of science as "godless education." While they are thus nearly unanimous in practically rejecting the course of providence in nature as a source of instruction to the young, each places in their hands its own

Catechism of doctrines, its Liturgy, its Confession of Faith, or its other articles of belief; and with the most pertinacious assiduity labours to imprint these indelibly on the memory, and to imbed them in the affections of its pupils. Meanwhile many of the sects denounce the catechisms, liturgies, and confessions of certain others as unsound, unscriptural, and dangerous to the eternal welfare of the people. Here, then, is a record unquestionably Divine, in so far as we read it rightly, superseded and set aside for books of human compilation, denounced as unsound by large masses of the community.

The effect of this on education is described by Mr Horace Mann* in the following words:—"After the particular attention which I gave to this subject (religious instruction) both in England and Scotland, I can say, without any exception, that, in those schools where religious creeds and forms of faith, and modes of worship, were directly taught, I found the common doctrines and injunctions of morality, and the meaning of the preceptive parts of the Gospel, to be much less taught and much less understood by the pupils, than in the same grade of schools, and by the same classes of pupils with us," in Massachusetts, where the teaching of all sectarian doctrines in common schools is prohibited by law. Is not this sacrificing Christianity itself at the shrine of Sectarianism?

The elements of which a sect is composed, are the points in which it differs from other sects, and its existence depends on the success and assiduity with which it infuses a knowledge of and reverence for these into the minds of the young. It represents them as subjects of the utmost importance to their temporal and eternal welfare. In the estimation of its zealous leaders, they greatly surpass in practical as well as religious importance, the order of nature. If any sect were to cease investing its points of difference with the highest reverence in the estimation of its pupils, and begin to magnify the truth and utility of the doctrines in which all are agreed, it would commit *felo de se*. Its dissolution and fusion into the general body of Christian believers would be inevitable and speedy. The more completely, therefore, the different sects obtain the command of education, the greater will be the obstacles to the introduction of the order of nature into schools.

The points in which all Christian sects are agreed *must*

* Report of an Educational Tour in Germany and Parts of Great Britain and Ireland, by Horace Mann, Esq., Secretary of the Board of Education, Massachusetts, U. S. With Preface and Notes, by W. B. Hodgson. London: Simpkin, Marshall, and Co. 1846.

constitute the essential substance of Christianity; because it is on these that Christian men of all denominations act in the business and relations of life. Pious, honest, and benevolent men, abound in them all; and this common excellence must spring from a common source. The points on which they differ, although they form the life-blood and bonds of union of sects, cannot constitute Christianity; because if they did, the Christian religion would really have scarcely any practical form or substance. It would consist of abstract disquisitions, discernible only by microscopic eyes, and inapplicable to all beneficent ends. Who will say that the points of faith in which the Church of England differs from the Congregationalists, or the views of church government in which the Free Church differs from the Established Church of Scotland—or the Secession Church from the Free Church—or the Scotch Episcopalian Church from them all—are the essential elements of Christianity? And yet it is for the sake of maintaining these distinctions from generation to generation, and of transmitting to the remotest posterity the bitter contentions which have so frequently vexed the spirits and alloyed the happiness of this age, that we are called on to exclude instruction in the course of nature, as a guide to human conduct, from our schools; to reject a system of education founded on the points in which all are agreed; and to prostrate the national mind beneath the ear of sectarianism, and to allow it to be crushed into dust by its unhallowed wheels!

Practical Christianity, on the other hand, and the laws of nature, physical, organic, and moral, present the same instruction and recommend the same line of action to all, and are, therefore, destructive of sectarianism. Hence the deadly cry of infidelity which all sects raise against them! Obedience to them is calculated to bind man to man, and nation to nation, by the ties of reciprocal interest as well as of affection and duty, and to bring all into communion with God. Our knowledge of them grows with the growth of science, and their influence increases with the augmentation of the prosperity which obedience to their dictation yields.

Every motive of duty and interest, therefore, calls on the laity and the Legislature to disenthral education from the dominion of sects, and to allow to God's providence a fair field for working out its beneficial ends. Disguise the fact as we will, the order of nature—in other words, God's secular providence—is a power which in this world shapes our destinies for weal or woe; while the peculiar doctrines of sectarianism only exalt the consequence and power of clerical teachers, and the few zealous laymen who

constitute their staff. To vote money, therefore, as is done by the Minutes of Council of August and December 1846, to every sect, to enable it to educate its own members in its own religious doctrines, is actually endowing discord. It is deserting the shrine of reason and of moral and religious principle, and bowing at that of prejudice and bigotry. It is renouncing all reverence for God's providence, as revealed in the course of nature; for every one of the sects, if it does not exclude, deny, and denounce the order of nature as a source of practical instruction to the young, at least practically treats it as a matter of small importance compared with its own peculiar dogmas. To give them the public money to enable them to pursue this course of instruction more effectually, is to encourage them in placing their own wisdom high above that of the Creator.

Truth alone can benefit a nation, yet the doctrines of every sect cannot possibly be true: to give each of them public money, therefore, to teach its own tenets, is to endow equally truth and error. It is tantamount in physics to setting in motion antagonistic forces; in cookery, it is like paying one man to pour wormwood and another sugar into the cup of which the nation is to drink. By all means allow the men who prefer wormwood to fill their own bowl with it; and those who prefer sugar to fill theirs with sugar; but let not the Government, which superintends the cup out of which all must drink, pay men with national money to destroy the contents of that cup, and render them a potion which no human palate can endure. To pay all sects, who are teaching solemn contradictions, implies an utter disbelief in any intelligible order of God's providence on earth. It deliberately supersedes that teaching, and plants conflicting catechisms, liturgies, and confessions, in its place. If the heads of the Government cannot discern in science an exposition of the order of nature, or, in other words, of the course of God's providence on earth, they may at least so far defer to Divine wisdom and intelligence, as to believe that God's providence, however dark, must be self-consistent, and that it does not promise to prosper contradictions!

Will not the men of intellect and science who see this to be the case assume courage, speak out, and help to stem the torrent of sectarianism which overflows the land! They have it in their power at this moment to do their country an invaluable service, for which she would one day rear monuments of gratitude to their names. Will they, through fear of a little temporary obloquy, desert the standard of truth, of God, and of the people! Let their own consciences an-

swer the appeal, and let them act as their consciences dictate. Will no teachers arise, imbued with knowledge of the order of nature, as unfolded in science, and, with faith in its adaptation to the human faculties, communicate it, under the sanction of the religious sentiments, to the young, as a help to guide them through the thorny paths of life? Yes! Such teachers exist, and they lack only the countenance of the enlightened laity to follow the strong impulses of their affections and understandings, and accomplish this great improvement in secular instruction.

Moreover, under the sectarian system, not only is the advancing intelligence of the people shackled by the consecrated errors of the dark ages, but the most vigorous and profound thinkers among the clergy of all denominations are subdued and held in thralldom by their feebler brethren. The men of inferior endowments and intelligence take their stand on the accredited dogmas, which they cherish because they are in accordance with their own narrow and prejudiced perceptions; and they resist every liberal idea and study that has the most remote appearance of conflicting with their own preconceived ideas. As they exert a great influence over a half-educated people, trained to regard their doctrines with holy reverence, the more powerful minds too generally retire from the field, and leave to them an undisputed sway.

The best interests of society suffer from this unhappy state of things; whereas if nature were taught, as the harmonious ally of Christianity, the men endowed with the profoundest intellects, and the purest and most elevated emotions, would lead the general mind, and we should constantly advance. In the present time the leaders of the Calvinistic sects are strenuously exerting themselves to bring back the public sentiment to the opinions of the beginning of the seventeenth century; and if they do not succeed, it is science alone which prevents this consummation of their labours.

From the neglect of nature by the sects, and the paramount importance which they attach to their own peculiar doctrines, they languish when not excited by contention among themselves. Dr Candlish illustrated this fact lately, when he called on the Free Church to renew and proclaim its "testimony;" in other words, constantly to obtrude on public attention the peculiar views which distinguish it from all other sects. He assigned, as the motive for doing so, the danger of decay, with which it appears already to be threatened, from its distinctive characteristics being forgotten, seeing that its standards, doctrines, and discipline, are identical with those of the Established Church of Scotland.

There is no perennial source of activity and progress in any doctrine that is not in harmony with and supported by the course of nature. A scheme, on the contrary, founded on the combined principles of Christianity and God's natural laws, will enjoy an inherent vitality, and a self-rectifying energy, that will cause it constantly to flourish and advance. It will in time root out sectarian errors, and unite all classes in the bonds of harmonious truth.

In advocating a non-sectarian system of national education, I do not propose to deliver over scholars and teachers to government officers, with power to mould their minds into whatever forms our rulers may prefer, as some advocates of sectarian instruction pretend. The United States of North America have set us a bright example in this enterprize. They have divided their country into convenient spaces, and designated them as school-districts. The existing law of Massachusetts (Revised Statutes, 1835, title x., chap. 23), ordains that districts containing fifty families shall maintain one school—districts containing one hundred and fifty families shall provide two schools, and so forth,—“in which children shall be instructed in reading, writing, geography, arithmetic, and good behaviour, by teachers of competent ability and good morals.” Larger districts, again, are required to maintain a school, “in which the history of the United States, book-keeping, surveying, geometry, and algebra, shall be taught.” And if the locality shall contain four thousand inhabitants, the teacher shall—“in addition to all the branches above enumerated, be competent to instruct in the Latin and Greek languages, general history, rhetoric, and logic.” The law requires the inhabitants to raise money by taxing themselves for supporting these schools, and ordains them to appoint committees annually for managing them.*

In regard to the question, What, in conformity with law, may be taught in these schools in the name of religion? the “constitution” of Massachusetts requires that all children shall be taught “the principles of piety, justice, and a sacred regard to truth, love to their country, humanity, and universal benevolence, sobriety, industry, and frugality, chastity, moderation, and temperance, and those other virtues which are the ornament of society, and the basis upon which a republican constitution is founded.” The “constitu-

* Farther details concerning the machinery by which the schools are managed, and the taxes levied, in Massachusetts, will be found in an article in the *Edinburgh Review* for July 1841, under the title of “Education in America.”

tion" goes no farther in specifying what things may be taught ; but by the laws of the State, the school committees are authorised to prescribe the books which shall be used in the schools, under the restriction (imposed by section 23d of the Revised Statutes)—that they " shall never direct to be purchased or used in any of the town schools any school-books which are calculated to favour the tenets of any particular sect of Christians." This prohibition was *first* enacted in 1827 ; but in 1835, when the statutes were revised, it was retained and re-enacted by an almost unanimous vote in both branches of the Legislature, and was approved of by Samuel T. Armstrong, an orthodox gentleman, then acting as Governor of the State.

The Bible is allowed to be read in all, and is actually read in nearly all, the schools ; and, of course, whatever *it* teaches is taught.

Farther, " Under the provisions of the constitution and laws, children may be taught to love the Lord their God with all their heart, and their neighbour as themselves ; they may be taught to do to others as they would be done by ; to do justly, to love mercy, and to walk humbly with God ; they may be taught to visit the fatherless and widows in their affliction, and to keep themselves unspotted from the world ; they may be taught to honour father and mother ; to keep the Sabbath holy ; not to steal ; not to kill ; not to bear false witness against neighbours ; not to covet. Nay," continues Mr Mann, " I refer to that awe-inspiring description of the judgment in the 25th chapter of Matthew, and I say that there is not a single *action* or *omission* there mentioned, for which the righteous are to be rewarded and the wicked punished, that may not be taught, inculcated, or warned against, in all our schools. Such, also, I know to be the opinion of the Board of Education. Are all these things, and everything else of a kindred character, which the Scriptures contain, *non-essentials* in Christianity ? But perhaps you desire something more for the schools ? Perhaps you desire, not only that these passages (quoted by an evangelical adversary) should be read, but that certain articles of faith, or formularies, more or less in number, embodying these passages in a manner more acceptable to you than is found in the original texts, should be taught with them ?" This is what is prohibited by the law.*—(P. 12.)

Mr Mann continues—" I have now received more than a thousand reports from the school committees of the respective towns (districts) in the state, detailing the condition and

* " The common School Controversy." Boston, U. S., 1844.

wants of the schools. Probably a majority of them were written by clergymen. In these reports, no subject has been more freely discussed than that of moral and religious instruction, and how far the latter might be carried without trenching upon the rights of individuals; and with only two exceptions—less, therefore, than one in five hundred—the voice of these committees has been unanimous in favour of our constitution and laws on the subject of religious instruction, as they now stand. Every one of these reports, also, was accepted in open town meeting, and, therefore, must have received the sanction of the town whence it came.”—(P. 13.)

This system, or one closely resembling it, has been found to be practicable, and to produce excellent effects, wherever it has been tried in the United States. Why should it not produce the same beneficial fruits in England and Scotland?

In discussing the question of Government aid, let it ever be borne in mind, that the class most deeply interested is the poor. The upper and middle, and better conditioned members of the lower classes, have sent, and will continue to send, their children to schools which meet their own approbation, and for which they are able to pay. It is only the poor who are the real objects of our present solicitude; and we have the choice only of one of three measures in regard to them. *First*, To leave them in their present ignorant and destitute condition; which nobody advocates. *Secondly*, To leave them to be scrambled for by the contending sects,* who lie under no responsibility to perform the duty. Or, *thirdly*, To place them under the protection of the Legislature, and of the general intelligence and philanthropy of the country. The last is the scheme which I prefer; and disguise it as they will, those who recommend the second, appear to me to have at heart the interests of a sect more than those of the people.

Such a scheme as that which is now advocated, has everything to recommend it. It is the voluntary system preserv-

* The Rev. Dr Alexander, in his speech delivered at a public meeting held in Edinburgh on 31st March 1847, to oppose the Minutes of Council Scheme, gave a graphic representation of this scramble, which was loudly cheered by his audience, consisting chiefly of Evangelical Dissenters. “There is,” said he, “another thing which I do not like in this measure, which has not been dwelt upon this evening. It is this; that instead of giving us a scheme of national education which shall tend to merge our sectarian differences, and our sectarian prejudices, in our common interests, this measure is distinguished by nothing so much as being a contrivance, in my opinion, to deepen the animosity of sects, and to involve the country more than ever in all the fierce bitterness of sectarian strife.”—“The consequence will be a continual striving amongst all the different sects to get hold of children, and to keep them in their schools when they are there; and, in short, to use all sorts of means in order to induce and tempt children to join one sect rather than another.”

ing all its excellent elements, and freed from several serious imperfections. The benevolent and active members of every school district, naturally become the voluntary springs and managers of the whole educational machinery within it. They give life and vigour to its efforts, and control its every movement. They are enabled to do this with greatly increased effect, from the law placing funds at their disposal, arming them with official authority, and backing them by the moral influence of the *whole community*, instead of that of a single sect. Again, the exclusion of sectarian teaching operates most beneficially on the mind of every one who takes an interest in schools. It accustoms him to look on the points of faith and practice in which all Christian sects are agreed, instead of dwelling with concentrated attention on those which distinguish his sect from all others. And this promotes the growth of brotherly love and true religion. It leads the mind insensibly to perceive that Christianity consists rather in the points of faith and practice in which all sects are agreed, than in those regarding which they differ.

We are told, however, by some able opponents of the educational scheme introduced by the orders of Council, that Government has no right to interfere with the secular instruction of the people, and that voluntary effort is adequate to accomplish all that is needed for the public welfare. In my late "Remarks on National Education," I endeavoured to shew that Government has not only a right, but lies under an obligation, to enable the people, by legislative aid, to organize their own wealth and intelligence for the establishment and maintenance of schools for universal instruction; and I now beg to add, that experience shews that legislative aid beats voluntary effort out and out in this good work. England has been left to voluntary effort for the education of her people from the foundation of her institutions, and what has been the result? Mr Horace Mann, in his Educational Tour, says, "England is the only one among the nations of Europe, conspicuous for its civilization and resources, which has not, and never has had, any system for the education of its people. *And it is the country where, incomparably beyond any other, the greatest and most appalling social contrast exists; where, in comparison with the intelligence, wealth, and refinement of what are called the higher classes, there is the most ignorance, poverty, and crime among the lower!* Owing to the inherent vice and selfishness of their system, or their no-system, there is no country in which so little is effected, compared with their expenditure of means; and what is done only tends to sepa-

rate the different classes of society more and more widely from each other.”

In Prussia and the United States, on the other hand, the education of the people has been conducted by legislative authority and aid. The proper way to judge of the merits of the different systems, is to select two nations in corresponding degrees of ignorance, and inquire within what time each had attained to a certain degree of morality, intelligence, and industry. Now, it is a fact, which all history supports, that in the beginning of the present century the common people (for it is to their condition that the controversy refers) of Prussia and Western Germany were many of them serfs, and most of them steeped to the core in ignorance, indolence, and vice, oppressed by unmitigated despotisms, and valued by their rulers chiefly as materials for war. They resembled the English common people in the reign of Queen Elizabeth. The English have enjoyed free institutions for 250 years, and during all that time the Voluntary principle in education has been allowed to do its best to elevate their condition, unawed by despotism and uninterrupted by foreign invasion. The liberation of the Prussian peasant from slavery, and the introduction of the national system of education, dates from 1807, but the latter did not come into full operation till ten years afterwards. One generation, therefore, has not yet entirely passed away since it was introduced. In thirty years the Prussian system has put a soul under the ribs of death, called into existence a national, intelligent, and energetic spirit, destroyed one-half of the remaining power of the Church of Rome, and extorted by moral force, without revolution or shedding one drop of blood, institutions more or less free, from all the sovereigns of Germany, except Austria! Can any one shew as much accomplished by the Voluntary principle in the same period, starting from the same zero of attainment in England?

Mr Mann sums up his description of the English “no system,” and of the Prussian scheme, in the following words:—“Arrange,” says he, “the most highly civilized and conspicuous nations in Europe in their due order of precedence as it regards the education of their people, and the kingdoms of Prussia and Saxony, together with several of the western and south-western states of the German confederation, would undoubtedly stand pre-eminent, both in regard to the quantity and quality of instruction. After these come Holland and Scotland.” “The whole Prussian system,” continues Mr Mann, “impressed me with a deep sense of the vast difference in the amount of general attainment and talent devoted to the cause of popular education in that country, as com-

pared with any other country or state I had ever seen.'—
(Page 146.)

There is a great difference between the influence of the voluntary principle when applied to the support of churches and of schools for the poor. The object of the church is to provide means for securing the eternal salvation of the contributor and his family—a most momentous consideration to every reflecting man. It involves the selfish principles of his nature as well as his affections and his sense of religious duty. The school for the poor, on the other hand, addresses chiefly his moral and religious sentiments, leaving his self-interest far in the rear. Experience shews that these emotions do not suffice to induce the rich to provide sufficiently for the physical wants of the poor, and, in consequence, Parliament has enacted poor-laws. How, then, should we rely on them for providing for a less clamant mental destitution ?

In supporting these views, I beg to be understood as leaving the Scripture doctrines relating to eternity, altogether to clerical superintendence. To maintain that the precepts of Christianity, in relation to human conduct in this world, are in harmony with, and supported by, the ordinary course of God's providence, and that they can never become practical until the reality of their being so is demonstrated to the understandings, and recommended to the moral and religious sentiments, of the people, can be objected to by those only who find a difficulty in reconciling their peculiar dogmas to such propositions. In the words of Archbishop Whately, "Revelation may be compared to a *telescope*, which brings within our view things beyond the reach of the naked eye ; but which no more supersedes the use of eyes than revelation does the use of reason ; and which, again, if it be a *good telescope*, does not distort or discolour such objects as do lie within the reach of unaided sight. Even so, Revelation, though going *beyond* what Reason could alone discover from a view of the created universe, will never *contradict* the perceived laws of that universe. A pretended revelation would be proved not to be a true one, if it were at *variance* with the laws by which the Maker of the universe governs it."—(" *Essay on Christian Self-Denial*," and in other works).

Armed resistance is one of the natural checks to injustice ; but it is liable to one great disadvantage. The contests of force are governed by the laws of force. The most numerous, best appointed, best disciplined, and most ably commanded army, will gain the victory, irrespective of the moral merits of the cause for which it fights. High moral motives animating it will, no doubt, add to its discipline, its patience, and its devotion ; and thus indirectly contribute to success ; but they will not, in any other respect, supply the place of the ordinary sinews of war. Nature, however, has other modes of arresting injustice ; and violence should never be resorted to until all better means have been tried without success.

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