

VII.

CHRISTIANITY AND PHYSICAL SCIENCE.

A LECTURE IN THE SCHOOL OF MEDICINE.

I.

NOW that we have just commenced our second Academical Year, it is natural, Gentlemen, that, as in November last, when we were entering upon our great undertaking, I offered to you some remarks suggested by the occasion, so now again I should not suffer the first weeks of the Session to pass away without addressing to you a few words on one of those subjects which are at the moment especially interesting to us. And when I apply myself to think what topic I shall in consequence submit to your consideration, I seem to be directed what to select by the principle of selection which I followed on that former occasion to which I have been referring. Then * we were opening the Schools of Philosophy and Letters, as now we are opening those of Medicine; and, as I then attempted some brief investigation of the mutual bearings of Revelation and Literature, so at the present time I shall not, I trust, be unprofitably engaging your attention, if I make one or two parallel reflections on the relations existing between Revelation and Physical Science.

This subject, indeed, viewed in its just dimensions, is far too large for an occasion such as this; still I may be

* *Vid.* Article I.

able to select some one point out of the many which it offers for discussion, and, while elucidating it, to throw light even on others which at the moment I do not formally undertake. I propose, then, to discuss the antagonism which is popularly supposed to exist between Physics and Theology; and to show, first, that such antagonism does not really exist, and, next, to account for the circumstance that so groundless an imagination should have got abroad.

I think I am not mistaken in the fact that there exists, both in the educated and half-educated portions of the community, something of a surmise or misgiving, that there really is at bottom a certain contrariety between the declarations of religion and the results of physical inquiry; a suspicion such, that, while it encourages those persons who are not over-religious to anticipate a coming day, when at length the difference will break out into open conflict, to the disadvantage of Revelation, it leads religious minds, on the other hand, who have not had the opportunity of considering accurately the state of the case, to be jealous of the researches, and prejudiced against the discoveries, of Science. The consequence is, on the one side, a certain contempt of Theology; on the other, a disposition to undervalue, to deny, to ridicule, to discourage, and almost to denounce, the labours of the physiological, astronomical, or geological investigator.

I do not suppose that any of those gentlemen who are now honouring me with their presence are exposed to the temptation either of the religious or of the scientific prejudice; but that is no reason why some notice of it may not have its use even in this place. It may lead us to consider the subject itself more carefully and exactly; it may assist us in attaining clearer ideas than before how Physics and Theology stand relatively to each other.

2.

Let us begin with a first approximation to the real state of the case, or a broad view, which, though it may require corrections, will serve at once to illustrate and to start the subject. We may divide knowledge, then, into natural and supernatural. Some knowledge, of course, is both at once ; for the moment let us put this circumstance aside, and view these two fields of knowledge in themselves, and as distinct from each other in idea. By nature is meant, I suppose, that vast system of things, taken as a whole, of which we are cognizant by means of our natural powers. By the supernatural world is meant that still more marvellous and awful universe, of which the Creator Himself is the fulness, and which becomes known to us, not through our natural faculties, but by superadded and direct communication from Him. These two great circles of knowledge, as I have said, intersect ; first, as far as supernatural knowledge includes truths and facts of the natural world, and secondly, as far as truths and facts of the natural world are on the other hand data for inferences about the supernatural. Still, allowing this interference to the full, it will be found, on the whole, that the two worlds and the two kinds of knowledge respectively are separated off from each other ; and that, therefore, as being separate, they cannot on the whole contradict each other. That is, in other words, a person who has the fullest knowledge of one of these worlds, may be nevertheless, on the whole, as ignorant as the rest of mankind, as unequal to form a judgment, of the facts and truths of the other. He who knows all that can possibly be known about physics, about politics, about geography, ethnology, and ethics, will have made no approximation whatever to decide

the question whether or not there are angels, and how many are their orders ; and on the other hand, the most learned of dogmatic and mystical divines,—St. Augustine, St. Thomas,—will not on that score know more than a peasant about the laws of motion, or the wealth of nations. I do not mean that there may not be speculations and guesses on this side and that, but I speak of any conclusion which merits to be called, I will not say knowledge, but even opinion. If, then, Theology be the philosophy of the supernatural world, and Science the philosophy of the natural, Theology and Science, whether in their respective ideas, or again in their own actual fields, on the whole, are incommunicable, incapable of collision, and needing, at most to be connected, never to be reconciled.

Now this broad general view of our subject is found to be so far true in fact, in spite of such deductions from it that have to be made in detail, that the recent French editors of one of the works of St. Thomas are able to give it as one of their reasons why that great theologian made an alliance, not with Plato, but with Aristotle, because Aristotle (they say), unlike Plato, confined himself to human science, and therefore was secured from coming into collision with divine.

“Not without reason,” they say, “did St. Thomas acknowledge Aristotle as if the Master of human philosophy ; for, inasmuch as Aristotle was not a Theologian, he had only treated of logical, physical, psychological, and metaphysical theses, to the exclusion of those which are concerned about the supernatural relations of man to God, that is, religion ; which, on the other hand, had been the source of the worst errors of other philosophers, and especially of Plato.”

3.

But if there be so substantial a truth even in this very broad statement concerning the independence of the fields of Theology and general Science severally, and the consequent impossibility of collision between them, how much more true is that statement, from the very nature of the case, when we contrast Theology, not with Science generally, but definitely with Physics! In Physics is comprised that family of sciences which is concerned with the sensible world, with the phenomena which we see, hear, and handle, or, in other words, with matter. It is the philosophy of matter. Its basis of operations, what it starts from, what it falls back upon, is the phenomena which meet the senses. Those phenomena it ascertains, catalogues, compares, combines, arranges, and then uses for determining something beyond themselves, viz., the order to which they are subservient, or what we commonly call the laws of nature. It never travels beyond the examination of cause and effect. Its object is to resolve the complexity of phenomena into simple elements and principles; but when it has reached those first elements, principles, and laws, its mission is at an end; it keeps within that material system with which it began, and never ventures beyond the "*flammanitia mœnia mundi*." It may, indeed, if it chooses, feel a doubt of the completeness of its analysis hitherto, and for that reason endeavour to arrive at more simple laws and fewer principles. It may be dissatisfied with its own combinations, hypotheses, systems; and leave Ptolemy for Newton, the alchemists for Lavoisier and Davy;—that is, it may decide that it has not yet touched the bottom of its own subject; but still its aim will be to get to the bottom, and nothing more. With matter it began, with matter it

will end ; it will never trespass into the province of mind. The Hindoo notion is said to be that the earth stands upon a tortoise ; but the physicist, as such, will never ask himself by what influence, external to the universe, the universe is sustained ; simply because he *is* a physicist.

If indeed he be a religious man, he will of course have a very definite view of the subject ; but that view of his is private, not professional,—the view, not of a physicist, but of a religious man ; and this, not because physical science says any thing different, but simply because it says nothing at all on the subject, nor can do so by the very undertaking with which it set out. The question is simply *extra artem*. The physical philosopher has nothing whatever to do with final causes, and will get into inextricable confusion, if he introduces them into his investigations. He has to look in one definite direction, not in any other. It is said that in some countries, when a stranger asks his way, he is at once questioned in turn what place he came from : something like this would be the unseasonableness of a physicist, who inquired how the phenomena and laws of the material world primarily came to be, when his simple task is that of ascertaining what they are. Within the limits of those phenomena he may speculate and prove ; he may trace the operation of the laws of matter through periods of time ; he may penetrate into the past, and anticipate the future ; he may recount the changes which they have effected upon matter, and the rise, growth, and decay of phenomena ; and so in a certain sense he may write the history of the material world, as far as he can ; still he will always advance from phenomena, and conclude upon the internal evidence which they supply. He will not come near the questions, what that ultimate element is, which we call matter, how it came to be, whether it can cease to be,

whether it ever was not, whether it will ever come to nought, in what its laws really consist, whether they can cease to be, whether they can be suspended, what causation is, what time is, what the relations of time to cause and effect, and a hundred other questions of a similar character.

Such is Physical Science, and Theology, as is obvious, is just what such Science is not. Theology begins, as its name denotes, not with any sensible facts, phenomena, or results, not with nature at all, but with the Author of nature,—with the one invisible, unapproachable Cause and Source of all things. It begins at the other end of knowledge, and is occupied, not with the finite, but the Infinite. It unfolds and systematizes what He Himself has told us of Himself; of His nature, His attributes, His will, and His acts. As far as it approaches towards Physics, it takes just the counterpart of the questions which occupy the Physical Philosopher. He contemplates facts before him; the Theologian gives the reasons of those facts. The Physicist treats of efficient causes; the Theologian of final. The Physicist tells us of laws; the Theologian of the Author, Maintainer, and Controller of them; of their scope, of their suspension, if so be; of their beginning and their end. This is how the two schools stand related to each other, at that point where they approach the nearest; but for the most part they are absolutely divergent. What Physical Science is engaged in I have already said; as to Theology, it contemplates the world, not of matter, but of mind; the Supreme Intelligence; souls and their destiny; conscience and duty; the past, present, and future dealings of the Creator with the creature.

4

So far, then, as these remarks have gone, Theology and Physics cannot touch each other, have no intercommunion, have no ground of difference or agreement, of jealousy or of sympathy. As well may musical truths be said to interfere with the doctrines of architectural science ; as well may there be a collision between the mechanist and the geologist, the engineer and the grammarian ; as well might the British Parliament or the French nation be jealous of some possible belligerent power upon the surface of the moon, as Physics pick a quarrel with Theology. And it may be well,—before I proceed to fill up in detail this outline, and to explain what has to be explained in this statement,—to corroborate it, as it stands, by the remarkable words upon the subject of a writer of the day :*—

“We often hear it said,” he observes, writing as a Protestant (and here let me assure you, Gentlemen, that though his words have a controversial tone with them, I do not quote them in that aspect, or as wishing here to urge any thing against Protestants, but merely in pursuance of my own point, that Revelation and Physical Science cannot really come into collision), “we often hear it said that the world is constantly becoming more and more enlightened, and that this enlightenment must be favourable to Protestantism, and unfavourable to Catholicism. We wish that we could think so. But we see great reason to doubt whether this is a well-founded expectation. We see that during the last two hundred and fifty years the human mind has been in the highest degree active ; that it has made great advances in every branch of natural philosophy ; that it has produced innumerable

* Macaulay's Essays.

inventions tending to promote the convenience of life ; that medicine, surgery, chemistry, engineering, have been very greatly improved, that government, police, and law have been improved, though not to so great an extent as the physical sciences. Yet we see that, during these two hundred and fifty years, Protestantism has made no conquests worth speaking of. Nay, we believe that, as far as there has been change, that change has, on the whole, been in favour of the Church of Rome. We cannot, therefore, feel confident that the progress of knowledge will necessarily be fatal to a system which has, to say the least, stood its ground in spite of the immense progress made by the human race in knowledge since the days of Queen Elizabeth.

“ Indeed, the argument which we are considering seems to us to be founded on an entire mistake. There are branches of knowledge with respect to which the law of the human mind is progress. In mathematics, when once a proposition has been demonstrated, it is never afterwards contested. Every fresh story is as solid a basis for a new superstructure as the original foundation was. Here, therefore, there is a constant addition to the stock of truth. In the inductive sciences, again, the law is progress. . .

“ But with theology the case is very different. As respects natural religion (Revelation being for the present altogether left out of the question), it is not easy to see that a philosopher of the present day is more favourably situated than Thales or Simonides. He has before him just the same evidences of design in the structure of the universe which the early Greeks had. . . As to the other great question, the question what becomes of man after death, we do not see that a highly educated European, left to his unassisted reason, is more likely to be

in the right than a Blackfoot Indian. Not a single one of the many sciences, in which we surpass the Blackfoot Indians, throws the smallest light on the state of the soul after the animal life is extinct. . .

“Natural Theology, then, is not a progressive science. That knowledge of our origin and of our destiny which we derive from Revelation is indeed of very different clearness, and of very different importance. But neither is Revealed Religion of the nature of a progressive science. . . In divinity there cannot be a progress analogous to that which is constantly taking place in pharmacy, geology, and navigation. A Christian of the fifth century with a Bible is neither better nor worse situated than a Christian of the nineteenth century with a Bible, candour and natural acuteness being of course supposed equal. It matters not at all that the compass, printing, gunpowder, steam, gas, vaccination, and a thousand other discoveries and inventions, which were unknown in the fifth century, are familiar to the nineteenth. None of these discoveries and inventions has the smallest bearing on the question whether man is justified by faith alone, or whether the invocation of saints is an orthodox practice. . . We are confident that the world will never go back to the solar system of Ptolemy; nor is our confidence in the least shaken by the circumstance that so great a man as Bacon rejected the theory of Galileo with scorn; for Bacon had not all the means of arriving at a sound conclusion. . . But when we reflect that Sir Thomas More was ready to die for the doctrine of Transubstantiation, we cannot but feel some doubt whether the doctrine of Transubstantiation may not triumph over all opposition. More was a man of eminent talents. He had all the information on the subject that we have, or *that, while the world lasts, any*

human being will have. . . No progress that science has made, or will make, can add to what seems to us the overwhelming force of the argument against the Real Presence. We are therefore unable to understand why what Sir Thomas More believed respecting Transubstantiation may not be believed to the end of time by men equal in abilities and honesty to Sir Thomas More. But Sir Thomas More is one of the choice specimens of human wisdom and virtue; and the doctrine of Transubstantiation is a kind of proof charge. The faith which stands that test will stand any test. . .

“The history of Catholicism strikingly illustrates these observations. During the last seven centuries the public mind of Europe has made constant progress in every department of secular knowledge; but in religion we can trace no constant progress. . . Four times since the authority of the Church of Rome was established in Western Christendom has the human intellect risen up against her yoke. Twice that Church remained completely victorious. Twice she came forth from the conflict bearing the marks of cruel wounds, but with the principle of life still strong within her. When we reflect on the tremendous assaults she has survived, we find it difficult to conceive in what way she is to perish.”

You see, Gentlemen, if you trust the judgment of a sagacious mind, deeply read in history, Catholic Theology has nothing to fear from the progress of Physical Science, even independently of the divinity of its doctrines. It speaks of things supernatural; and these, by the very force of the words, research into nature cannot touch.

5.

It is true that the author in question, while saying all

this, and much more to the same purpose, also makes mention of one exception to his general statement, though he mentions it in order to put it aside. I, too, have to notice the same exception here; and you will see at once, Gentlemen, as soon as it is named, how little it interferes really with the broad view which I have been drawing out. It is true, then, that Revelation has in one or two instances advanced beyond its chosen territory, which is the invisible world, in order to throw light upon the history of the material universe. Holy Scripture, it is perfectly true, does declare a few momentous facts, so few that they may be counted, of a physical character. It speaks of a process of formation out of chaos which occupied six days; it speaks of the firmament; of the sun and moon being created for the sake of the earth; of the earth being immovable; of a great deluge; and of several other similar facts and events. It is true; nor is there any reason why we should anticipate any difficulty in accepting these statements as they stand, whenever their meaning and drift are authoritatively determined; for, it must be recollected, their meaning has not yet engaged the formal attention of the Church, or received any interpretation which, as Catholics, we are bound to accept, and in the absence of such definite interpretation, there is perhaps some presumption in saying that it means this, and does not mean that. And this being the case, it is not at all probable that any discoveries ever should be made by physical inquiries incompatible at the same time with one and all of those senses which the letter admits, and which are still open. As to certain popular interpretations of the texts in question, I shall have something to say of them presently; here I am only concerned with the letter of the Holy Scriptures itself, as far as it

bears upon the history of the heavens and the earth ; and I say that we may wait in peace and tranquillity till there is some real collision between Scripture authoritatively interpreted, and results of science clearly ascertained, before we consider how we are to deal with a difficulty which we have reasonable grounds for thinking will never really occur.

And, after noticing this exception, I really have made the utmost admission that has to be made about the existence of any common ground upon which Theology and Physical Science may fight a battle. On the whole, the two studies do most surely occupy distinct fields, in which each may teach without expecting any interposition from the other. It might indeed have pleased the Almighty to have superseded physical inquiry by revealing the truths which are its object, though He has not done so : but whether it had pleased Him to do so or not, anyhow Theology and Physics would be distinct sciences ; and nothing which the one says of the material world ever can contradict what the other says of the immaterial. Here, then, is the end of the question ; and here I might come to an end also, were it not incumbent on me to explain how it is that, though Theology and Physics cannot quarrel, nevertheless, Physical Philosophers and Theologians have quarrelled in fact, and quarrel still. To the solution of this difficulty I shall devote the remainder of my Lecture.

6.

I observe, then, that the elementary methods of reasoning and inquiring used in Theology and Physics are contrary the one to the other ; each of them has a method of its own ; and in this, I think, has lain the point of controversy between the two schools, viz., that

neither of them has been quite content to remain on its own homestead, but that, whereas each has its own method, which is the best for its own science, each has considered it the best for all purposes whatever, and has at different times thought to impose it upon the other science, to the disparagement or rejection of that opposite method which legitimately belongs to it.

The argumentative method of Theology is that of a strict science, such as Geometry, or deductive ; the method of Physics, at least on starting, is that of an empirical pursuit, or inductive. This peculiarity on either side arises from the nature of the case. In Physics a vast and omnigenous mass of information lies before the inquirer, all in a confused litter, and needing arrangement and analysis. In Theology such varied phenomena are wanting, and Revelation presents itself instead. What is known in Christianity is just that which is revealed, and nothing more ; certain truths, communicated directly from above, are committed to the keeping of the faithful, and to the very last nothing can really be added to those truths. From the time of the Apostles to the end of the world no strictly new truth can be added to the theological information which the Apostles were inspired to deliver. It is possible of course to make numberless deductions from the original doctrines ; but, as the conclusion is ever in its premisses, such deductions are not, strictly speaking, an addition ; and, though experience may variously guide and modify those deductions, still, on the whole, Theology retains the severe character of a science, advancing syllogistically from premisses to conclusion.

The method of Physics is just the reverse of this : it has hardly any principles or truths to start with, externally delivered and already ascertained. It has to com-

mence with sight and touch ; it has to handle, weigh, and measure its own exuberant *sylva* of phenomena, and from these to advance to new truths,—truths, that is, which are beyond and distinct from the phenomena from which they originate. Thus Physical Science is experimental, Theology traditional ; Physical Science is the richer, Theology the more exact ; Physics the bolder, Theology the surer ; Physics progressive, Theology, in comparison, stationary ; Theology is loyal to the past, Physics has visions of the future. Such they are, I repeat, and such their respective methods of inquiry, from the nature of the case.

But minds habituated to either of these two methods can hardly help extending it beyond its due limits, unless they are put upon their guard, and have great command of themselves. It cannot be denied that divines have from time to time been much inclined to give a traditional, logical shape to sciences which do not admit of any such treatment. Nor can it be denied, on the other hand, that men of science often show a special irritation at theologians for going by antiquity, precedent, authority, and logic, and for declining to introduce Bacon or Niebuhr into their own school, or to apply some new experimental and critical process for the improvement of that which has been given once for all from above. Hence the mutual jealousy of the two parties ; and I shall now attempt to give instances of it.

7.

First, then, let me refer to those interpretations of Scripture, popular and of long standing, though not authoritative, to which I have already had occasion to allude. Scripture, we know, is to be interpreted according to the unanimous consent of the Fathers ; but,

besides this consent, which is of authority, carrying with it the evidence of its truth, there have ever been in Christendom a number of floating opinions, more or less appended to the divine tradition ; opinions which have a certain probability of being more than human, or of having a basis or admixture of truth, but which admit of no test, whence they came, or how far they are true, besides the course of events, and which meanwhile are to be received at least with attention and deference. Sometimes they are comments on Scripture prophecy, sometimes on other obscurities or mysteries. It was once an opinion, for instance, drawn from the sacred text, that the Christian Dispensation was to last a thousand years, and no more ; the event disproved it. A still more exact and plausible tradition, derived from Scripture, was that which asserted that, when the Roman Empire should fall to pieces, Antichrist should appear, who should be followed at once by the Second Coming. Various Fathers thus interpret St. Paul, and Bellarmine receives the interpretation as late as the sixteenth century. The event alone can decide if, under any aspect of Christian history, it is true ; but at present we are at least able to say that it is not true in that broad plain sense in which it was once received.

Passing from comments on prophetic passages of Scripture to those on cosmological, it was, I suppose, the common belief of ages, sustained by received interpretations of the sacred text, that the earth was immovable. Hence, I suppose, it was that the Irish Bishop who asserted the existence of the Antipodes alarmed his contemporaries ; though it is well to observe that, even in the dark age in which he lived, the Holy See, to which reference was made, did not commit itself to any condemnation of the unusual opinion. The same alarm again

occupied the public mind when the Copernican System was first advocated: nor were the received traditions, which were the ground of that alarm, hastily to be rejected; yet rejected they ultimately have been. If in any quarter these human traditions were enforced, and, as it were, enacted, to the prejudice and detriment of scientific investigations (and this was never done by the Church herself), this was a case of undue interference on the part of the Theological schools in the province of Physics.

So much may be said as regards interpretations of Scripture; but it is easy to see that other received opinions, not resting on the sacred volume, might with less claim and greater inconvenience be put forward to harass the physical inquirer, to challenge his submission, and to preclude that process of examination which is proper to his own peculiar pursuit. Such are the dictatorial formulæ against which Bacon inveighs, and the effect of which was to change Physics into a deductive science, and to oblige the student to assume implicitly, as first principles, enunciations and maxims, which were venerable, only because no one could tell whence they came, and authoritative, only because no one could say what arguments there were in their favour. In proportion as these encroachments were made upon his own field of inquiry would be the indignation of the physical philosopher; and he would exercise a scepticism which relieved his feelings, while it approved itself to his reason, if he was called on ever to keep in mind that light bodies went up, and heavy bodies fell down, and other similar maxims, which had no pretensions to a divine origin, or to be considered self-evident principles, or intuitive truths.

And in like manner, if a philosopher with a true genius for physical research found the Physical Schools of his

day occupied with the discussion of final causes, and solving difficulties in material nature by means of them ; if he found it decided, for instance, that the roots of trees make for the river, *because* they need moisture, or that the axis of the earth lies at a certain angle to the plane of its motion by *reason* of certain advantages thence accruing to its inhabitants, I should not wonder at his exerting himself for a great reform in the process of inquiry, preaching the method of Induction, and, if he fancied that theologians were indirectly or in any respect the occasion of the blunder, getting provoked for a time, however unreasonably, with Theology itself.

I wish the experimental school of Philosophers had gone no further in its opposition to Theology than indulging in some indignation at it for the fault of its disciples ; but it must be confessed that it has run into excesses on its own side for which the school of high Deductive Science has afforded no precedent ; and that, if it once for a time suffered from the tyranny of the logical method of inquiry, it has encouraged, by way of reprisals, encroachments and usurpations on the province of Theology far more serious than that unintentional and long obsolete interference with its own province, on the part of Theologians, which has been its excuse. And to these unjustifiable and mischievous intrusions made by the Experimentalists into the department of Theology I have now, Gentlemen, to call your attention.

8.

You will let me repeat, then, what I have already said, that, taking things as they are, the very idea of Revelation is that of a direct interference from above, for the introduction of truths otherwise unknown ; moreover, as such a communication implies recipients, an authoritative

depository of the things revealed will be found practically to be involved in that idea. Knowledge, then, of these revealed truths, is gained, not by any research into facts, but simply by appealing to the authoritative keepers of them, as every Catholic knows, by learning what is a matter of teaching, and by dwelling upon, and drawing out into detail, the doctrines which are delivered; according to the text, "Faith cometh by hearing." I do not prove what, after all, does not need proof, because I speak to Catholics; I am stating what we Catholics know, and ever will maintain to be the method proper to Theology, as it has ever been recognized. Such, I say, is the theological method, deductive; however, the history of the last three centuries is only one long course of attempts, on the part of the partisans of the Baconian Philosophy, to get rid of the method proper to Theology and to make it an experimental science.

But, I say, for an experimental science, we must have a large collection of phenomena or facts: where, then, are those which are to be adopted as a basis for an inductive theology? Three principal stores have been used, Gentlemen: the first, the text of Holy Scripture; the second, the events and transactions of ecclesiastical history; the third, the phenomena of the visible world. This triple subject-matter,—Scripture, Antiquity, Nature,—has been taken as a foundation, on which the inductive method may be exercised for the investigation and ascertainment of that theological truth, which to a Catholic is a matter of teaching, transmission, and deduction.

Now let us pause for a moment and make a reflection before going into any detail. Truth cannot be contrary to truth; if these three subject-matters were able, under the pressure of the inductive method, to yield respectively
- theological conclusions in unison and in concord with each

other, and also contrary to the doctrines of Theology as a deductive science, then that Theology would not indeed at once be overthrown (for still the question would remain for discussion, which of the two doctrinal systems was the truth, and which the apparent truth), but certainly the received deductive theological science would be in an anxious position, and would be on its trial.

Again, truth cannot be contrary to truth ;—if, then, on the other hand, these three subject-matters,—Scripture, Antiquity, and Nature,—worked through three centuries by men of great abilities, with the method or instrument of Bacon in their hands, have respectively issued in conclusions contradictory of each other, nay, have even issued, this or that taken by itself, Scripture or Antiquity, in various systems of doctrine, so that on the whole, instead of all three resulting in one set of conclusions, they have yielded a good score of them ; then and in that case—it does not at once follow that no one of this score of conclusions may happen to be the true one, and all the rest false ; but at least such a catastrophe will throw a very grave shade of doubt upon them all, and bears out the antecedent declaration, or rather prophecy, of theologians, before these experimentalists started, that it was nothing more than a huge mistake to introduce the method of research and of induction into the study of Theology at all.

Now I think you will allow me to say, Gentlemen, as a matter of historical fact, that the latter supposition has been actually fulfilled, and that the former has not. I mean that, so far from a scientific proof of some one system of doctrine, and that antagonistic to the old Theology, having been constructed by the experimental party, by a triple convergence, from the several bases of Scripture, Antiquity, and Nature, on the contrary, that

empirical method, which has done such wonderful things in physics and other human sciences, has sustained a most emphatic and eloquent reverse in its usurped territory,—has come to no one conclusion,—has illuminated no definite view,—has brought its glasses to no focus,—has shown not even a tendency towards prospective success ; nay, further still, has already confessed its own absolute failure, and has closed the inquiry itself, not indeed by giving place to the legitimate method which it dispossessed, but by announcing that nothing can be known on the subject at all,—that religion is not a science, and that in religion scepticism is the only true philosophy ; or again, by a still more remarkable avowal, that the decision lies *between* the old Theology and none at all, and that, certain though it be that religious truth is nowhere, yet that, *if* anywhere it is, it undoubtedly is not in the new empirical schools, but in that old teaching, founded on the deductive method, which was in honour and in possession at the time when Experiment and Induction commenced their brilliant career. What a singular break-down of a noble instrument, when used for the arrogant and tyrannical invasion of a sacred territory ! What can be more sacred than Theology ? What can be more noble than the Baconian method ? But the two do not correspond ; they are mismatched. The age has mistaken lock and key. It has broken the key in a lock which does not belong to it ; it has ruined the wards by a key which never will fit into them. Let us hope that its present disgust and despair at the result are the preliminaries of a generous and great repentance.

I have thought, Gentlemen, that you would allow me to draw this moral in the first place ; and now I will say a few words on one specimen of this error in detail.

9.

It seems, then, that instead of having recourse to the tradition and teaching of the Catholic Church, it has been the philosophy of the modern school to attempt to determine the doctrines of Theology by means of Holy Scripture, or of ecclesiastical antiquity, or of physical phenomena. And the question may arise, *why*, after all, should not such informations, scriptural, historical, or physical, be used? and if used, why should they not lead to true results? Various answers may be given to this question: I shall confine myself to one; and again, for the sake of brevity, I shall apply it mainly to one out of the three expedients, to which the opponents to Theology have had recourse. Passing over, then, what might be said respecting what is called Scriptural Religion, and Historical Religion, I propose to direct your attention, in conclusion, to the real character of Physical Religion, or Natural Theology, as being more closely connected with the main subject of this Lecture.

The school of Physics, from its very drift and method of reasoning, has, as I have said, nothing to do with Religion. However, there is a science which avails itself of the phenomena and laws of the material universe, as exhibited by that school, as a means of establishing the existence of Design in their construction, and thereby the fact of a Creator and Preserver. This science has, in these modern times, at least in England, taken the name of Natural Theology;* and, though absolutely distinct from Physics, yet Physical Philosophers, having furnished its most curious and interesting data, are apt to claim it as their own, and to pride themselves upon it accordingly.

* I use the word, not in the sense of "*Naturalis Theologia*," but, in the sense in which Paley uses it in the work which he has so entitled.

I have no wish to speak lightly of the merits of this so-called Natural or, more properly, Physical Theology. There are a great many minds so constituted that, when they turn their thoughts to the question of the existence of a Supreme Being, they feel a comfort in resting the proof mainly or solely on the Argument of Design which the Universe furnishes. To them this science of Physical Theology is of high importance. Again, this science exhibits, in great prominence and distinctness, three of the more elementary notions which the human reason attaches to the idea of a Supreme Being, that is, three of His simplest attributes, Power, Wisdom, and Goodness.

These are great services rendered to faith by Physical Theology, and I acknowledge them as such. Whether, however, Faith on that account owes any great deal to Physics or Physicists, is another matter. The Argument from Design is really in no sense due to the philosophy of Bacon. The author I quoted just now has a striking passage on this point, of which I have already read to you a part. "As respects Natural Religion," he says, "it is not easy to see that the philosopher of the present day is more favourably situated than Thales or Simonides. He has before him just the same evidences of design in the structure of the universe which the early Greeks had. We say, just the same; for the discoveries of modern astronomers and anatomists *have really added nothing* to the force of that argument which a reflecting mind finds in every beast, bird, insect, fish, leaf, flower, and shell. The reasoning by which Socrates, in Xenophon's hearing, confuted the little atheist, Aristodemus, is exactly the reasoning of Paley's Natural Theology. Socrates makes precisely the same use of the statues of Polycletus and the pictures of Zeuxis, which Paley makes of the watch."

Physical Theology, then, is pretty much what it was

two thousand years ago, and has not received much help from modern science : but now, on the contrary, I think it has received from it a positive disadvantage,—I mean, it has been taken out of its place, has been put too prominently forward, and thereby has almost been used as an instrument against Christianity,—as I will attempt in a few words to explain.

10.

I observe, then, that there are many investigations in every subject-matter which only lead us a certain way towards truth, and not the whole way: either leading us, for instance, to a strong probability, not to a certainty, or again, proving only some things out of the whole number which are true. And it is plain that if such investigations as these are taken as the measure of the whole truth, and are erected into substantive sciences, instead of being understood to be, what they really are, inchoate and subordinate processes, they will, accidentally indeed, but seriously, mislead us.

1. Let us recur for a moment, in illustration, to the instances which I have put aside. Consider what is called Scriptural Religion, or the Religion of the Bible. The fault which the theologian, over and above the question of private judgment, will find with a religion logically drawn from Scripture only, is, not that it is not true, as far as it goes, but that it is not the whole truth ; that it consists of only some out of the whole circle of theological doctrines, and that, even in the case of those which it includes, it does not always invest them with certainty, but only with probability. If, indeed, the Religion of the Bible is made subservient to Theology, it is but a specimen of useful induction ; but if it is set up, as something complete in itself, against Theology, it is turned into a mischievous

paralogism. And if such a paralogism has taken place, and that in consequence of the influence of the Baconian philosophy, it shows us what comes of the intrusion of that philosophy into a province with which it had no concern.

2. And so, again, as to Historical Religion, or what is often called Antiquity. A research into the records of the early Church no Catholic can view with jealousy: truth cannot be contrary to truth; we are confident that what is there found will, when maturely weighed, be nothing else than an illustration and confirmation of our own Theology. But it is another thing altogether whether the results will go to the full lengths of our Theology; they will indeed concur with it, but only as far as they go. There is no reason why the data for investigation supplied by the extant documents of Antiquity should be sufficient for all that was included in the Divine Revelation delivered by the Apostles; and to expect that they will is like expecting that one witness in a trial is to prove the whole case, and that his testimony actually contradicts it, unless it does. While, then, this research into ecclesiastical history and the writings of the Fathers keeps its proper place, as subordinate to the magisterial sovereignty of the Theological Tradition and the voice of the Church, it deserves the acknowledgments of theologians; but when it (so to say) sets up for itself, when it professes to fulfil an office for which it was never intended, when it claims to issue in a true and full teaching, derived by a scientific process of induction, then it is but another instance of the encroachment of the Baconian empirical method in a department not its own.

3. And now we come to the case of Physical Theology, which is directly before us. I confess, in spite of whatever may be said in its favour, I have ever viewed it with

the greatest suspicion. As one class of thinkers has substituted what is called a Scriptural Religion, and another a Patristical or Primitive Religion, for the theological teaching of Catholicism, so a Physical Religion or Theology is the very gospel of many persons of the Physical School, and therefore, true as it may be in itself, still under the circumstances is a false gospel. Half of the truth is a falsehood :—consider, Gentlemen, what this so-called Theology teaches, and then say whether what I have asserted is extravagant.

Any one divine attribute of course virtually includes all ; still if a preacher always insisted on the Divine Justice, he would practically be obscuring the Divine Mercy, and if he insisted only on the incommunicableness and distance from the creature of the Uncreated Essence, he would tend to throw into the shade the doctrine of a Particular Providence. Observe, then, Gentlemen, that Physical Theology teaches three Divine Attributes, I may say, exclusively ; and of these, most of Power, and least of Goodness.

And in the next place, what, on the contrary, are those special Attributes, which are the immediate correlatives of religious sentiment ? Sanctity, omniscience, justice, mercy, faithfulness. What does Physical Theology, what does the Argument from Design, what do fine disquisitions about final causes, teach us, except very indirectly, faintly, enigmatically, of these transcendently important, these essential portions of the idea of Religion ? Religion is more than Theology ; it is something relative to us ; and it includes our relation towards the Object of it. What does Physical Theology tell us of duty and conscience ? of a particular providence ? and, coming at length to Christianity, what does it teach us even of the four last things, death, judgment, heaven, and hell, the mere ele-

ments of Christianity? It cannot tell us anything of Christianity at all.

Gentlemen, let me press this point upon your earnest attention. I say Physical Theology cannot, from the nature of the case, tell us one word about Christianity proper; it cannot be Christian, in any true sense, at all:—and from this plain reason, because it is derived from informations which existed just as they are now, before man was created, and Adam fell. How can that be a real substantive Theology, though it takes the name, which is but an abstraction, a particular aspect of the whole truth, and is dumb almost as regards the moral attributes of the Creator, and utterly so as regards the evangelical?

Nay, more than this; I do not hesitate to say that, taking men as they are, this so-called science tends, if it occupies the mind, to dispose it against Christianity. And for this plain reason, because it speaks only of laws; and cannot contemplate their suspension, that is, miracles, which are of the essence of the idea of a Revelation. Thus, the God of Physical Theology may very easily become a mere idol; for He comes to the inductive mind in the medium of fixed appointments, so excellent, so skilful, so beneficent, that, when it has for a long time gazed upon them, it will think them too beautiful to be broken, and will at length so contract its notion of Him as to conclude that He never could have the heart (if I may dare use such a term) to undo or mar His own work; and this conclusion will be the first step towards its degrading its idea of God a second time, and identifying Him with His works. Indeed, a Being of Power, Wisdom, and Goodness, and nothing else, is not very different from the God of the Pantheist.

In thus speaking of the Theology of the modern Phy-

sical School, I have said but a few words on a large subject ; yet, though few words, I trust they are clear enough not to hazard the risk of being taken in a sense which I do not intend. Graft the science, if it is so to be called, on Theology proper, and it will be in its right place, and will be a religious science. Then it will illustrate the awful, incomprehensible, adorable Fertility of the Divine Omnipotence ; it will serve to prove the real miraculousness of the Revelation in its various parts, by impressing on the mind vividly what are the laws of nature, and how immutable they are in their own order ; and it will in other ways subserve theological truth. Separate it from the supernatural teaching, and make it stand on its own base, and (though of course it is better for the individual philosopher himself), yet, as regards his influence on the world and the interests of Religion, I really doubt whether I should not prefer that he should be an Atheist at once than such a naturalistic, pantheistic religionist. His profession of Theology deceives others, perhaps deceives himself.

Do not for an instant suppose, Gentlemen, that I would identify the great mind of Bacon with so serious a delusion: he has expressly warned us against it; but I cannot deny that many of his school have from time to time in this way turned physical research against Christianity.

But I have detained you far longer than I had intended ; and now I can only thank you for the patience which has enabled you to sustain a discussion which cannot be complete, upon a subject which, however momentous, cannot be popular.