THE REV. PREBENDARY FOX IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

The following elections were announced:—


ASSOCIATE: The Rev. J. A. Lightfoot, M.A.


The CHAIRMAN introduced Mr. Baylis as one whose academic and clerical experience had given him the advantage, not common in his profession, of being qualified to form a well-trained and balanced judgment in regard to the mutual relations of religion and science.

As a graduate at Oxford in Natural Science, Vice-Principal of Wycliffe Hall, in charge of a large town parish in the north, and for the last eighteen years a secretary of the Church Missionary Society, he was exceptionally competent to deal with the subject before the meeting of the Institute.

THE RELATION OF SCIENCE TO CHRISTIAN MISSIONS. By Rev. F. Baylis, M.A.

The relation between Science and Christian Missions would seem to be small if we were to judge by business discussions in a Missionary Committee Room.

Had there been, during the last eighteen years, any serious discussion involving this relation in the Committee Room of a certain Missionary Society, which is one of the largest in the world, the writer of this paper could hardly have failed to know of it. Yet, so far as his memory serves, there has been none such.

There may be gathered, from this absence of discussion, a strong presumption that science is in no serious way a difficulty to Christian missions. But it would be a mistake to infer that the inter-relations are beneath notice, or of less than vast importance.

At least we are dealing with two of the great contemporary living forces of the world, and it would be strange to find they had no bearing on one another.
In missionary circles it is recognised that we have now arrived at "the decisive hour of Christian Missions." The Church of Christ is face to face with a world that is being transformed within a short generation. It is not difficult to show that applied science is one of the most potent factors among the forces which (a) are changing the world; and also among the forces which (b) give to the Church her present opportunity; and which, (c) at the same time, limit that opportunity.

(a) The world is a changing world, because the great peoples of the East and the backward races of other lands are assimilating, at an astounding pace, the inventions and the knowledge of the West.

Everyone knows something of the course of events which transformed Japan in so short a time, bringing it into rank with the civilized West. The eyes of the world have been drawn upon it. Even the Missionary Committee Room is aware of the march of science in Japan. For it is not long since a letter told us of the new Bishop of Hokkaido, a missionary well known and loved among the people of his diocese, receiving in mid-ocean on his way out a wireless message of welcome from his little flock in the Northern Island. Japan is up to date.

But China is treading the same path. The change that is coming must be stupendous from the enormous population and area of the Empire. The change is coming apace—much faster, we are told, than it came in Japan. What the magnitude of it means may be illustrated by the saying that while "Japan has now nearly six millions of youth in her schools and colleges . . . . the same proportion will some day give China over fifty millions."* "The day is coming, and that very soon, when China will have more students than any other nation in the world."

As to the pace of progress, Dr. Mott says,† "China has made more radical adjustment to modern conditions within the past five years than has any other nation, not excepting Korea. Those who have studied the great changes that came over Japan will remember that she made no such advance in the first ten years after she began to adopt Western civilization as China has made during the past five years. Sir Robert Hart, the

eminent civilian and sagacious observer of things Chinese, in commenting on the recent changes in China, said that during the first forty-five years of his residence in China the country was like a closed room, without a breath of fresh air from the outside world, but that the past five years reminded him of being in a room with all the windows and doors wide open and the breezes of heaven sweeping through."

Telegraphs, railways, and factories are cited as making astonishing progress, and the closing words of one of Dr. Mott's paragraphs will serve to symbolize the revolution that applied science is working in China: "In many cities the rushlight has been superseded by the electric light. The fear of 'boring into the pulse of the dragon' is being lost by those who are anxious to exploit the enormous mineral wealth of the country."*

It must not be supposed that China stands alone, though it is such a conspicuous instance, in this kind of revolution. All the backward races, with remarkably few exceptions, are passing through the same experience. Steamboats, railways, telegraph systems, and motor-cars are to-day parts of the environment of well-nigh the whole human race, and in many cases the fact is all the more significant because it means a sudden jump from all that was simplest, most "primitive" as men are apt to say, to much that is of the most modern and marvellous in the science of the nineteenth and twentieth centuries.

(6) For our present purpose we need now to notice how Christian Missions are affected by the changes that are taking place so rapidly. The applied science that produces these changes can be claimed as immensely favouring the progress of Missions. Partly this is so in a quite direct sense. The printing press, the railway, the steamboat, the bicycle, the motor-car are all agencies by which science helps to bring the missionary to his field; to put into his hands the printed Bible, the chief material agent in his work; to minimize the waste of his time and strength in service; and to give him in a thousand ways the victory over the adverse circumstances of his task. In these days, when a tourist can get from Mombasa, the port of East Africa, to the capital of Uganda in three or four days by rail and steamer, and can cable home the news of his safe arrival in a few minutes, and can be off in a few hours on his bicycle to any part of the country, it is hard to realise how things were only fifteen years ago, when the first ladies reached Uganda by a weary three months' march, and when it was no strange thing for a

* Mott's *Decisive Hour of Christian Missions*, p. 10.
mail party to be cut to pieces by some turbulent tribe, and for
letters to be missing for many months.

Perhaps as powerfully in an indirect way science helps the
missionary by the prestige it inevitably gives him. Sometimes
it is merely as one of the people of the wonderful West
that he is great among his hearers. But at other times it is
because every article of his simple kit, every convenience of his
daily life witnesses to an ignorant people of the wonderful
power and science of the white man. Some of the simple
people of Uganda were on one occasion a little tempted to
discredit the good news of a missionary, but one of their
number challenged his fellows to dare to doubt what came from
men of such wonderful wisdom. "See," he said, referring to
some lightning conductors erected to church and house, "these
are men who can put up a hand into the sky, and catch the
very lightning and dash it down into the ground so that it
cannot do any harm. How can we doubt the wisdom of what
these men tell us?" This is, of course, not cited as in any
wise the basis on which the missionary likes his message to
rest, but it shows the prestige that goes into the mission-field
with the commonest scientific knowledge from our homelands.

Men with eyes to see the great events of world history have
been telling us of recent years that the greatest happenings are
those where mighty peoples are awakening to Nationality as
their chief need and possibility, as the thing for which they
must let go the old unifying forces of religion to find the new
forces mightier still. Think of this in Japan, China, India,
Turkey and other lands. It shows us the crisis of missions.
Then dwell for a moment on the obvious course of national
 progress for these peoples. It is in their eyes above all things
necessary for them to get the material civilisation, in a word,
the science of the West. Their faces are all turned to Europe
and America. The very lands that want to send them Christian
missions are the lands from which they are hoping and
expecting to receive light and leading.

A believer in the Providence of God will not fail to find his
faith strengthened by all he can learn of the synchronising, in
the world's history, of the age of missions and the age of applied
science. It is possible to argue with some force that God
meant the science of our day to serve great purposes of His in
"turning the world upside down" as part of His agency in
extending to all the world the Kingdom of His Christ. It is
prima facie evidence that missions and science come of the love
and wisdom of one and the same Lord.
It must, however, be acknowledged that there is something of another side to all this influence of Applied Science. There are manifestly evil uses to be made of some of our inventions, and Anti-Christian propaganda as well as Christian, can use the prestige of the West. There is little need, however, to dwell upon this, if it be always recognised that the Missions are likely to be the hottest field of battle, between the forces for and against the religion of Jesus Christ. We are safe, too, in the conviction that the balance lies overwhelmingly with that which tells in favour of Christian Missions.

(c) In one direction, however, there is a serious menace for missions in the march of Science. It lies in the fact that the day of opportunity is made so short. That missions are at the "decisive hour" is because, for a little time, the nations are plastic, receptive, dependent. It is but for an hour. For Science, like Christianity, when once revealed is the heritage of the whole human race. It has a greater army of apostles, a more unfailing support of energy and means behind it, and seems to find in its agents motives almost equally compelling with those which make the missionary. Who that believes God to be the "God of Knowledge" can for a moment regret this enthusiasm and progressive force? Yet it would be intensely grievous to see the fertilising tide of material knowledge sweep over the great Eastern world, to see it spend its force, and leave stranded far behind the sister blessings of the Christian faith, which then might have a far less hopeful opportunity.

Not many years ago it seemed entirely in accordance with the facts for Archbishop Temple to speak of three marked stages in the history of Christian Missions. First, the age of the Early Church, when the Church with all the power and all the knowledge of the world ranged against it, in the Roman Empire, none the less won the day. Second, the later age when the Church with all the true enlightenment on its side, but with all the power of the world against it, in the Western Barbarian nations, again won the day. Third, the present era, when the Church with all the wisdom and all the power on its side, has the task of winning the other two-thirds of the human race, the great non-Christian peoples of Africa and the East. The Church with all the wisdom and all the power on its side! Is that true even now? Will it not become less and less true every year, one ought perhaps to say every month because the change is so rapid? The march of science tends to cut the day of opportunity, in this respect, very short.

It might be out of place to make on these grounds, and in
this paper, a missionary appeal. But it will not be out of place to put in a reminder that Science and Christianity are, in our view, revealed by the same Lord, and that it is of His providence that we are living in the generation which is meant by Him to be the great epoch of the spread of both. Should it not be a matter of real concern to us to see that the advancing tide of Missions may keep pace with that of Science?

*Science in Medical Missions.*

Thus far the relation traced has been that of dependence by Missions on modern Science as a powerful ally. In at least one direction it is possible to show the relation vice versa. Here we may claim that missions have paved the way along which science moves to bless the world. It is in Medical Missions.

At the World Missionary Conference at Edinburgh in June, 1910, the Hon. W. Jennings Bryan made the following notable statement*:

"My presence at this Conference . . . is due to the fact that on a trip round the world I had a chance of visiting a number of mission stations and a number of colleges. . . . I was impressed by the fact that there is no organisation among men working altruistically for people in other lands except an organisation with religion at the back of it, and under it, and around it."

Since he was taking part in a discussion on Educational Missions, Mr. Bryan naturally turned to an educational illustration and said:

"There is no organisation that can cultivate an enthusiasm for education alone, sufficient to make the people who belong to it go down into their pockets and give money for people they do not know, but Christianity itself."

He might almost equally well have used the illustration we have before us, that of surgical and medical science.

Doubtless Mr. Bryan's assertion would be made too sweeping if it were made to mean that only missionaries carry the blessings of Western enlightenment to the uncivilized nations. It is not to be forgotten that to a very large extent the Western races, when they undertake to govern more backward peoples, do provide schools and hospitals and all manner of blessings for their subjects. Yet even in such cases they often wait for Christian Missions to be their pioneers in this beneficence. And

*Report, vol. iii, p. 434.*
further, it is here to be noticed that there are vast populations who are not subjects of Western races. Some of them, as they awake, do and will, no doubt, seek and obtain for themselves the gain to be had from Western science, including medicine and surgery. Sometimes they will acquire these things at their very best, and at high cost, as witness the Japanese Military Hospitals. Yet the broad fact stands true, that for vast regions of the world, where the blessings of medical and surgical science are most needed, where, until they arrive, their place is taken by unspeakable cruelties and abominations, it is in the main to Christian missions that the suffering multitudes must look for the boon of imported science.

It is one of the things for which Christendom may be most sincerely thankful, that in the Church's Medical Missions Science is giving of its very best, to vast populations in China, on the frontier of India and beyond it into the country of the wild hill tribes, in many a city of the great Moslem world and among the suffering tribes of Africa.

Here is an instance, told some years ago by a missionary from China, and once heard not to be easily forgotten:

The Christian missionaries, trying to get a foothold in a great fanatical city, opened a Medical Mission. Something of their aim and methods was understood by the many young literati of the place. With cruel ingenuity they set themselves to baffle the doctor. They sought out all the hopeless incurables they could find, and brought them round to the Medical Mission to confound the skill of the missionary. Even on that footing he was not altogether beaten. He could at least put some of them to bed and teach them, and be kind to them for a few days or weeks, while he waited for his opportunity. At last he scored his first point. The literati made a mistake, they brought a supposed incurable, with some eye trouble, if memory serves, and the doctor could and did give some real relief. Thus began a new era. They began to realize that this Western Science could do wonderful things, and it was kind. Progress, however slow, might have been expected from that day. But an altogether unexpected incident occurred. Not far from the hospital, down by a river side, a terrible explosion took place at a powder factory. Many poor people were killed, many more dreadfully injured. The doctor, on arrival, found that for a number of the mangled sufferers, the kindest thought of the Chinese was to throw them at once into the river. Shortening their pain was perhaps one motive; a stronger one, may be, the relief of the survivors from a terrible burden
which they could not bear, of cases beyond their skill. The doctor thought he could do something if allowed, and with difficulty persuaded the people to let him have a few cases to treat in his hospital. In the end he succeeded with a fair proportion of his patients. The people were astonished, grateful, subdued. They could not do enough to honour the loving skill they had witnessed. This man must be the official doctor for their wounded soldiers, and the very _literati_ who had done their utmost to thwart his first efforts, when no doubt their best name for him would have been, say, "Foreign Devil," came to him when his furlough was due, to make sure about the continuance of his work, and brought a fine address inscribed "to the Angelic Healer from over the Seas."

The gift was very definitely the gift of science, but the channel for it was opened by Christian Missions. To a very large extent this is still for China, for the Moslem world, and for other great tracts of the world the relation between Medical Science and Christian Missions. Science, as a power for good, owes its opportunity to Missions.

It may be worth while, however, to notice here, too, that this relation is, to a large extent, a passing phase of the world's history. The Missions will not long have the privilege of being the first and chief channel for this sort of beneficence.

Dr. Duncan Main, who has himself done yeoman's service in Hangchow as a medical missionary and trainer of native medical students, said at the Edinburgh Conference*:

"There is no medical education in China" (none, _i.e._, as the context shows, in the normal course of things in China, no "qualification" for doctors). "There is no greater need to-day in China than for medical education. . . . Those of us who have been engaged in the medical education for more than a quarter of a century have had our hearts almost torn to pieces by the suffering, the agony, the awfulness of what was called Medical Science in China. The demand is tremendous, the demand is everywhere . . . the Government wants medical men, the railways want medical men, and they all want them. The demand from the Government is so great that we cannot keep sufficient men to carry on our own work." (This refers obviously to the trained native assistants.) The Government comes forward and says, "we will give you £15 and the Missionary Society are only giving you £1. . . ."

It is clear that the day is upon us when China will, in one

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way or another, staff itself with trained doctors. At present
the chief and the best channel is the Christian Mission, but the
Missions' day of opportunity may not last long. While they
have their day they are doing splendid service to science, by
opening its door of usefulness.

Seeing that this is so, it may be permitted to missions to plead
for one measure of special consideration in the medical schools.

From homes and schools where they are brought up in the
Christian religion, there pass into the hospitals a number
of young men and women to whom the experience must
inevitably bring a severe testing of the faith of their childhood;
particularly is this the case with young women. To some of
them who are led to this experience by their sense of a Divine
call to the Mission field it may be the most heart-searching
period of their lives. No true friend of both religion and
science would, of course, appeal against any freedom for fair
give-and-take influence of each upon the other. The religious
belief which cannot find room for science, truly so-called, does
not seem worthy of its name. But the faith may be a tender
plant. Its growth and vigour may be quite adequately tested
and hardened by the inevitable interchange of ideas and opinions
within the circle of student life. It might experience both a
disastrous and an unfair struggle if it had to maintain itself
against anything that seemed to come with the voice of authority,
from the staff of teachers. Now, happily, there is good reason to
believe that the noble body of scientific teachers are most
honourable in this respect. They would have no desire to
raise gratuitously doubts and difficulties for a believer in
Christianity: and if occasion arises for any utterance on points
in dispute they would be careful that when they speak ex
cathedra it is only upon subjects which are within their proper
province. The appeal is made that such care should be deliber­
ately made universal.

Let it be felt that the convictions of the would-be missionary
are, at least in this one respect, a precious possession for the
whole medical profession. They may prove the most open
channel by which its best may be given to the most needy of
the world's sufferers. Let, then, the path of the missionary be
looked upon as one where only malice or folly could think of
deliberately placing a stumbling block. To embody this appeal
in a paper before the Victoria Institute will, it is hoped,
ensure it against any appearance either of enmity against
science, or of fear lest true science be found in conflict with
true religion.
Missions and the Science of Morals.*

While it is possible to trace, as has been done above in outline, mutual dependence of missions and science, it cannot be supposed that this relation is the whole of the story. It must be admitted that it is quite possible for some branches of missionary work, to enter into a sort of rivalry, if not a still less happy relation, with some forms of science. An example which comes most readily to mind is that of anthropology both as a theoretical science and even more where it is in any considerable degree an applied science. In the mission field of to-day the anthropologist is a sort of younger brother of the missionary. The non-Christian races and particularly the backward ones, occupy the attention of both. The missionary has often in the past been the best informant of the anthropologist, and sometimes his best pioneer in getting access to a shy or savage tribe. Sometimes, however, he is a formidable and yet possibly useful, critic of anthropological facts; and he would like to be the means, by his wonderfully enlightening gospel, of cutting short the life history of the so-called "primitive" conditions in which the backward races are still found.

It might appear, then, to be a case of parallel approach to great problems of human life and history, and it might be expected that mutual helpfulness and sympathy should result. Perhaps so. But there is one element in this case that is not usual. The place which has to be found for the knowledge of God makes a difference here which does not usually arise. The Science it may be admitted is no more anti-Christian or non-Christian than any other Science; but it is a very remarkable case of the inevitable limitations of Science on the religious side.

What we contrast with Missions is anthropology as it tries to read on scientific principles the riddle of the nature and history of man as a moral and religious being. Taking this problem on scientific grounds, just the same grounds, mutatis mutandis, as are taken by physics, chemistry, biology, and other branches of science, a theory of the evolution of morals, and even of the evolution of religion, holds the field to-day.

In Mr. Hobhouse’s Morals in Evolution, which will serve as a good sample of books on the Science of Morals, recorded facts about standards of moral conduct and about the basis of these

* The writer apologises for reproducing on this subject part of an article in the C.M.S. Review for April, 1907.
standards in religious beliefs, or in philosophy and reason, are the materials used. A bewildering maze of moral customs among savages, in ancient beginnings of great civilisations, and at various stages of subsequent culture, are grouped somewhat after the manner of biological orders and genera. And, just as in biology fossils and living creatures are brought into one tree of life, with evolution as the secret of its history, so here, ancient races and modern, savage and civilized, are characterised and located by what is held to be an observed evolution.

Looking for the basis of morals, the author examines leading features of religious development. His position here is most important. He takes a long stride beyond the limits of science merely physical, but (and this is the essential point for our present purpose) he still stops short of any field of enquiry above and beyond man. Human institutions, and the ideas which men have as the basis of their institutions, are his study. We are shown "the character of the primitive conception of spirits," we meet the savage who "invents beings who are not mere spirits behind the objects that surround him, but are genuine mythical creations." At every turn gods and spirits are spoken of as being what the worshipper imagines them to be. Here are a few instances. "Often, as we know, the gods retain traces of their lowly origin." "They control the great forces of nature and the main functions of life." "They have their wives."

It is of course abundantly manifest that Mr. Hobhouse does not assert such things for our acceptance. It is a perfectly legitimate way of speaking of unreal beings so long as it only occurs where author and readers are agreed about the unreality. But the trouble is that, on the principles of his science, the Author has to go on upon the same lines when he deals with Judaism and Christianity, and he does. He seems to use the same sort of phraseology upon the same basis, as if Jehovah, too, were only what His worshippers imagine Him to be. "Yahveh was the God of Israel just as Chemosh was the god of Moab;" "He is not wholly without fear of the men that He has made"; "He is in magic fashion dangerous to His worshippers." There are a few pages about Christianity, but even that is discussed as a merely human matter; Christians teach and practise so-and-so. Only very rarely is anything said about the Founder Himself. His name does not occur in the index. The question of His Being is left entirely out of sight.

Something like this, it would seem, is what the Science of Morals and of Religion must be. It is easy to see how much it
must stand in contrast with the study of the same problems by the missionary. His business is to adjust relations, if he may, between living men and a living God. Before all else he looks for tokens of the presence, the working, the grace of the living God in the morals and religion of all the races of mankind. He wants to carry the knowledge of God revealed in Jesus Christ, and he watches keenly for any tokens of "broken lights," fragments of that knowledge, which are to be found already among his hearers. It must be very difficult for him to stand on the platform of the scientific anthropologist. Having the conviction that man is just as truly linked with God, the Superhuman, as he is with physical nature, he cannot but feel all the time that to follow the Science of Religion, as here outlined, is to work in a darkened workshop. The true light of heaven seems deliberately shut out; he would be examining man in unreal conditions because God is not recognised. The limitations are not the same as when, life being extinct, the body is dissected; but they are, he feels, parallel limitations, for to him man without God is no more the real human being than is the body without life.

Here then is a notable case in which missions bring men to the side of certain students of Science, whose work must deeply interest them, may greatly enlighten them so far as it goes, and yet must seem to them most gravely limited, if not spoilt, just by the fact that it is scientific.

Is it not just because Science is what it is that the Science of religion and of morals must be so unsatisfying?

Dr. Jevons in his Religion in Evolution truly points out that it is of the nature of the conclusions of science to be commonly in need of "correction," of subsequent adjustment, that is, to considerations which deliberately were left out of sight while science did its work; and he clearly indicates the existence of God as among those omitted considerations.

"Science and the theory of evolution are built upon the understanding that science must go on its way quite unhampered by the question whether there is, or is not a God. As far as science and evolution are concerned that question is not raised; it is assumed that we do not know, and for the purposes of science do not require to know. And so long as we adhere to that assumption, the position of science remains unmoved."

Perhaps it may seem that in spite of any peculiar disadvantage attaching to this theoretical science, the Christian missionary may go his way unhindered by it, if not able to gather from its studies much light and guidance for his own work. Largely
that is true, and no doubt some very valuable work, done for missionary purposes in the way of comparative religion and comparative ethics, owes a great deal to the parallel studies of the scientific anthropologist.

But, as was suggested above, there is more trouble when the science comes to application. Where, then, does that happen? It is of course a familiar fact that the theoretical scientist is often not the man to apply his theory. The writer of books on anthropology may be a very different person from the man who, somewhere, applies to practical life the results of the science of religion or of morals.

The sphere of application which will be noticed here is that wherein the attempt is to be made to make men and women moral without religion. There seems a grave danger of that perilous enterprise being undertaken on a large scale.

Commission V of the Edinburgh Conference said,* "The modern missionary situation is profoundly affected by the fact that Western education is being given, and will be increasingly given, throughout Asia and Africa apart from the Church of Christ. We are confronted by the fact that the children of far more than half of the human race may within the next generation be educated without any reference to those spiritual truths which are the only real and permanent support of social order and personal morality. What has happened in Japan must come to be the case in India and China, most probably in Turkey, and, in time perhaps, throughout Africa. The Japanese Government have created a complete system of universal education. While moral instruction is required in all secondary schools, the entire system is, and must be, non-religious, for where modern education is given non-Christian religion cannot live. . . . No one who knows what part even the poorest religion has played in sustaining social bonds, in affording sacred sanctions for the crudest code of morality, can view this situation without the deepest anxiety."

We see too the civilised West deliberately educating and influencing India, Egypt, and many parts of Africa on almost identical principles.

It may be fairly held that in such cases, at the best, the proposal is to apply on a grand scale scientific ethics.

The case of Egypt affords a most interesting example, and it can be well studied in the frank discussion of the problem by Lord Cromer in his Modern Egypt†. Setting before his country

the aim of producing and leaving behind in Egypt, "a fairly good, strong, and—above all things—stable government," Lord Cromer pictures the English statesman as confidently expecting to be able "to benefit the mass of the population"; and, as to his principles, he says he "will in his official capacity discard any attempt to proselytise, he will endeavour to inculcate a distinctly Christian code of morality as the basis for the relations between man and man. He is indeed guided in this direction by the lights, which have been handed down to him by his forefathers, and by the Puritan blood which still circulates in his veins." That is the science of morals applied at its best. It is not Christianity, for the attempt is to keep the highest known morality, which is Christian, without the specific Christian basis.

So far as it is right to judge of this problem as one of ethics without religion, it will come within the scope of Dean Wace's excellent paper on that subject read before the Victoria Institute on May 21st, 1900; a paper dealing it may be remembered with the theories of "the Society of Ethical Propagandists." With characteristic fairness and wisdom the Dean showed, not indeed that the loss of the Christian faith must mean the ruin of all morals, but that the highest morality may well be dependent on the truth of the Christian revelation, and he closed his paper with these words, "If that theology could not be maintained, it would, indeed, be unworthy of human nature to say that all morality must go with it. But it would be true that the highest glory of morality, and its profoundest source would be removed."

Whether the non-religious Ethics can succeed was interestingly discussed in a chapter of Ecce Homo on the "Nature of Christ's Society." The following are a few sentences from that chapter.

"Christianity then, and moral philosophy are totally different things, and yet profess to have the same object, namely, the moral improvement of mankind . . . Each has its function, and philosophy undertakes quite another sort of moral improvement than Christianity. The difference may be shortly expressed thus:—Both endeavour to lead men to do what is right, but philosophy undertakes to explain what it is right to do, while Christianity undertakes to make men disposed to do it."

. . . "Some machinery is wanted which may evoke the good impulses, cherish them, and make them masters of the bad ones . . . Philosophy has no instruments that it can use for this purpose. There exists no other such instrument but that personal one of which Christ availed Himself."
If we allow some very considerable margin for improvements in the science of morals in the forty years since *Ecce Homo* was written, and if we thankfully admit that much practical experience has been gained in the meanwhile by honest labour, nevertheless we must still conclude that, standing one against another, the science of morals cannot claim to show a proved success, while Christian missions are more and more able to claim that they show no proved failure—no proved failure, that is, of the Christian religion to provide an adequate moral standard and power for all those peoples who truly live by the "grace and truth" of its Founder; and in e.g., Korea, Uganda, Tierra-del-Fuego, the Southern Seas and the Arctic home of the Esquimaux they have some most encouraging cases of success in the conquest of new territories. For much of the world, there must be, sooner or later, this choice between Christian missions and this limited Science, and the former are not well satisfied to leave the field to the science of morals. They are rivals. Further, if the Science should in any case be favoured by the powers that be to the hindrance of missions, the latter will, as in a measure they already do, protest against unwise exclusion or unjust restriction.

*Missions and Marvels.*

It has not seemed important to point out how much the Christian Missionaries have done for Science as explorers, collectors, and pioneers. Such help is incidental and not rendered by reason of their Christianity. But there is one direction, at least, in which the Mission, by its very nature, opens up a special field of enquiry for Science and submits some striking phenomena for explanation.

It is, of course, true that even in the familiar circumstances of our home life the service of Christ occasions remarkable tokens of a Divine providence, and of the fact that our daily life is lived close upon the borders of a world of mystery. Here, at home, we are in touch with the living God, and where He, the Infinite, is found there is sure to be mystery. But to a degree far exceeding the common experience of the Christian in England, we are assured that Providence and Mystery are manifested in the Mission Field. There is obvious reason to expect this, if it be true that Missions are the extension of the Kingdom of God by a process of conquest over "World rulers of this darkness,"* as St. Paul said they were in his

* Eph. vi, 12.
day. The mission-field is then the most likely place to find experiences parallel, in the conflict between light and darkness, between good and evil, to those of our Lord Himself and His Apostles.

It seems to the writer certain beforehand that no such marvels will be found as will compel belief in the intervention of God. Not even the miracles in the Gospel records do that, and they were not intended to do it. It would therefore be of little use to set out a series of instances of supposed special providences, of wonderful answers to prayer, of spiritual revivals, of demon possession and exorcism, if the idea were to find an argument for the existence and working of God which could not be refuted. After very severe sifting of its authenticity, a story must always be open still to any possible efforts to explain away what may be subjective belief only, or delusion, or coincidence; and it would be only to court defeat to offer an instance supposed to be able to defy doubt on all such points. The suggestion is not that these events and experiences prove anything. It is that they occur with such frequency and with such remarkable features as to demand the attention of anyone who maintains that "miracles do not happen," or who would dogmatically assert that the human race comes nowhere into experimental touch with the super-human. It may perhaps just be added that, for what it is worth, this evidence would generally be presented from the mission-field as betokening evil influences beyond the human, quite as really as the super-human good.

Missions and the Teaching of Science.

There is one broad aspect of mutual relations not yet referred to, which calls for recognition as of growing importance. It is the place of science in the general enlightenment of Africa and the East, and its bearing on missions.

There is little to be said here save that the relation is, on the whole, a quite happy one.

Christian missions mean propaganda for the best religion, and it has been well said by Prof. Gwatkin* that "the word of science to religion seems everywhere the same. The highest ideal may be true, but the lower must be false. So science has been a destroying spirit and has filled the temple of truth with ruins. But the things she has destroyed were only idols.

Religion—the highest ideal—she has placed on a firmer throne than ever.”

Commission V of the Edinburgh Conference said, “The atmosphere of historical knowledge, of even elementary science, still more of advanced metaphysics and psychology, of astronomy and natural history, is fatal to any faith in the gods and modes of worship of the non-Christian world.”

So far therefore as missions require to break down the power of the non-Christian religions they find in science a powerful ally, an irresistible force rapidly doing for them this part of their work.

This could not be a truthful statement of the case if science had at all the same bearing on the best religion, on Christianity itself. But there is no evidence that it has. There was at the Edinburgh Conference evidence, on all hands, that the mission authorities, by conviction and experience, are assured that their cause is not hindered but served by giving the very best of Western knowledge, science included, to all the world; and further, it is just because missions are Christian that the leaders see they must undertake to give their best.

Dr. Hawkes Pott, of Shanghai*, said, “The need of efficiency (in missionary education that is) has been put before you on the ground that we are faced with Government competition. . . . That opinion seems to me not to place the need of efficiency upon the highest ground. When the Christian Church takes up the work of education, it is bound to give the very best, because the Christian religion, of all religions in the world, recognises the fact that all truth comes from one source . . . and it is not only our privilege but our bounden duty to give all the truth which the European mind has thus far been able to apprehend.”

To the same point Professor Moore, of Harvard, said, “We need a Christian system of education . . . held in absolute respect . . . because of its educational value, because of its educational integrity, and because it commands intellectual respect in every regard.”

And Bishop Roots,† of Hankow, appealed “to the Universities of the West to unite their forces as Universities in bringing to the Chinese people the very best that we have in our Western education.”

The principle, embodied in its report‡ by the Edinburgh

† P. 436.
‡ P. 198.
Commission on Education, that since "Heathenism is a debased form of life, accompanied by distorted views of material phenomena," therefore, "in the educational policy of missionary societies, emphasis should now be laid . . . upon systematic study of nature," is in general the principle of Christian missions.

It is a claim as true as it is splendid, that Professor Gwatkin makes* for our religion, that "it is a plain matter of history that modern science is the nursling of Christianity"; and his suggestion is a notable one that "Christianity is the only religion which could become quite supreme without limiting the field of science."

Christian missions are, on ever new ground, maintaining this happy relation with all useful branches of scientific education, and presumably as the demand grows, so will the supply, if only the ranks of missionaries with scientific qualifications can be at all adequately recruited. It is a great appeal that the missions make on this account to our Universities. Perhaps it is a little surprising that up to the present the extent has not been greater and the standard higher of science teaching in the mission-field, whether in Government or mission schools. But a recent enquiry at the Student Volunteer Offices for a possible science teacher for a mission school elicited the remark that just at present it is especially science teaching that is in demand. The scientists with the Christian missionary spirit seem likely soon to be, as would naturally be expected, the most needed men and women in the Church of Christ. Commission V of the Edinburgh Conference, on the Preparation of Missionaries, came across the need of scientific knowledge for modern missionaries, and strongly advocated an element of science in the training of all missionaries. They quote one missionary as saying,† "I do not think any missionary should be allowed out who has not some grounding of knowledge of the constitution of the physical universe in which we live. Such knowledge is being diffused all through the east, and it is deplorable when a missionary's ignorance is shown up thereon. 'If you cannot tell me of earthly things, how shall I believe when you tell me of heavenly things?'"

It has been intended in this paper to avoid the discussion of mutual relations between science and religion as such. Christianity has been as far as possible always viewed in the one aspect

of its extension in our own day, among foreign non-Christians. It must, of course, remain true that Christian missions have their share in all the general influences of science upon religion, and upon Christianity in particular. These are matters not seldom discussed and not without their great encouragements, yet with some distresses and difficulties for the Christian pastor and evangelist. Non-Christian and anti-Christian writings of men of some mark in the world of science are not without their effect at home, and it is the same in the mission field.

"China is being flooded with translations of Agnostic literature. The effects produced at home by the works of Haeckel, Huxley, Grant Allen, and the publications of the rationalistic press are being reproduced in China. In Manchuria a 'No God' society has made its appearance, founding itself upon the Agnostic literature of the West."* But these conditions, though new and of serious meaning in the East, are left on one side here, as being sure to arise everywhere as civilisation makes progress, and not special in any way to Christian Missions.

For the same reason nothing has been said of the splendid help to the cause of Christianity afforded by the utterances by men of science, of their sincere faith in Christ. It may suffice to allude to the notable series of testimonies collected by the Rev. G. T. Manley from such men, and set out by him before Indian students.†

This sketch of the relations between science and Christian Missions has been offered for the reader's consideration, at the request of a representative of the Institute. It cannot claim to have gone beyond the obvious and the superficial. Nevertheless it may perhaps serve the purpose of inviting some little more attention to a really important matter, viz., the crisis, now reached in the world's history, for all that is being done to extend the Kingdom of our Lord Jesus Christ. It may attract afresh the notice of a few to the tremendous meaning for the whole world of a transformation which is taking place, in which it is difficult to say whether it is science or missionary enterprise which has played, and which yet has to play the greater part. It should also be for what it is worth some testimony to the fact that as allies, with full mutual trust, science and missions can best make the way that God intends for them in His world.

* Edinburgh Report.
† The Views of Modern Science, C.M.S. 1d.
Together they should work, so long as science does not make this impossible for itself, as perhaps it sometimes may, by too rigidly adhering to methods, and by submitting only results which are of little worth until "corrected," for the very existence and working of God. Together they should work, and as both under His richest blessing should they contribute to the fulfilling of the prophecy of two scriptures that "the earth shall be full of the knowledge of the Lord as the waters cover the sea."*

**DISCUSSION.**

The Chairman said that Mr. Baylis had used the word science in a broad and popular sense, as expressing the study and knowledge of natural phenomena; but he had recognized that there was also a Science of ethics and not less a Science of religion. True science in its enquiries should neglect no phenomena whether natural or supernatural which affect the subject of its research or its conclusions. Research remains unscientific if it fails in this respect. The Chairman had long felt that the argument which Mr. Baylis had used in his very temperate observations upon the limitations of some anthropologists, might be applied with equal reason to many of the conclusions of the Biblical critic. They were very much what an apostle had described long ago as "words which man's wisdom teacheth." They are the products of human reason rising no higher than the plane of human thought, inconclusive till "corrected" by the recognition of spiritual facts.

Referring to the lecturer's remarks about the influence on the mind of ignorant people produced by applied science, he could confirm what had been said from the experience of his two sons in West Africa. The native savage, attracted and impressed by a magnet, a watch, or a gramophone, is often the more willing to listen to the missionary's message. On the other hand if Missions owe something to Science, he was convinced that Science owed as much, if not more, to Missions.

Bishop Thornton was invited from the Chair to make a few remarks. He said: I really have nothing to challenge in this paper though I have examined it most critically. It has filled me with

* Is. xi, 9; Hab. ii, 14.
admiration, and my own experience fully confirms certain curious phenomena Mr. Baylis has referred to. Science ought to take cognisance of the manifestations of spiritual power whether evil or good; they are very real, and no one sees more of them than the missionary. I am sure we are all deeply indebted to Mr. Baylis for his admirable paper.

The Secretary read the following communication from the Rev. Canon Dodson, Principal, S. Paul's Missionary College, Burgh R.S.O., Lincs.:—The subject is an interesting one, wide and varied, and lies along a hitherto little-trodden path. I gather, from the speaker's handling of it, that he intends the term "Science" to be treated in a pretty comprehensive sense.

1. I should like to emphasise what Mr. Baylis says (on p. 103 (c)) about the warning suggested by the forward march of Western scientific knowledge in the East, for it would be unsatisfactory work to observe effects without drawing out what is their lesson. Repeatedly I had it said to me in India by non-Christian students of the College in which I formerly worked there, "I am no Hindu, my studies of Physical Science here have made that impossible, but I have nothing in place of my old belief." As nature abhors a vacuum, we may feel sure that something will come in to fill that void; and there lies an illustration of the "menace" to which Mr. Baylis refers. If we are, and cannot help being, responsible for this destructive process, we are surely no less bound to the conduct of a constructive enterprise—to anticipate other constructions; and surely the only constructive undertaking worth the labour of the double work is that represented by Christian missionary effort. Hence the present "decisive hour" in this direction.

2. Whilst Science is thus dissolving ancient systematised creeds amongst the more civilised non-Christian peoples of the East, other departments of scientific research have—especially in recent years—inensely enlightened, uplifted, and strengthened our Christian knowledge. This of course, in spite of natural suspicion in earlier days, but inevitable in the long run, since both Science and the Christian system deal with the working of the same God. It seems to me, e.g., that the amount we owe to scientific research for a truer understanding of the Old Testament cannot be too gratefully acknowledged, and because "of the Old Testament," therefore also of the New; this increase of truth means increased strength; and
for the missionary in daily contact with rival faiths, almost more than for ministers in lands where Christianity is more or less established. I wish I had time to draw out this point into instances.

3. In another direction Science has greatly strengthened ability to represent Christianity as a continuously historical religion, which is not only founded and built up throughout on historical facts, but which alone gives one persistent unifying meaning to the whole history of mankind in every locality, type, and age. This is a contribution of almost equal value for missionary work whether amongst a people like the Chinese, with a constitutional reverence for history and continuous historical relationships, or amongst the Brahmins of India, who have so recently become keenly alive to their losses through neglect of the historical faculty hitherto.

4. However antagonistic Science may at one time and in certain minds have thought herself towards many of the Christian doctrines, it is not so now: the leaders of Science in the present day recognise the limits to scientific research, and largely acknowledge that those limits bring us to a line where they find Christian truths to be probable and possible—which is wellnigh all that the Christian apologists claim to show. Here, then, again we find a sisterly relationship between Science and Christianity—and therefore a valuable assistance from the former to the work of the missionary among the more literate non-Christian races. Indeed it is for work among the more intellectual peoples that the relationship of Science comes in more especially, rather than for that among the more barbarous. At the same time, as Mr. Baylis' paper points out, amongst the latter—no less than the former—the contribution of Science enters with full force into the work of Medical Missions; and I would add, in many branches of what are called Industrial Missions also.

5. For his own personal equipment, apart from his presentation of the Christian system to others, Science has brought much aid to the missionary: e.g.—

(a) One of his occasional temptations amidst specially backward races lies in the opinion so often hastily adopted by the globe-trotter or the worldly-minded employer of native labour, that the barbarous peoples may, after all, be of a different species from ourselves. But here Science—now well-nigh unanimous on the subject—comes in with steady
finger to point him once more to his Bible-doctrine of the unity of the whole human family. And, similarly, from its insistence upon the unity in the Universe it supports his faith in a single Creator with a single mind for all His creatures. It is not all missionaries who are attacked in this particular way—each has his own personal difficulties in the mission-field—but some are.

(b) Science has largely helped to develop the scientific mind in the practical principles of missionary organisations and workers. The widespread idea in the minds of many business people—which, even though probably out of date, lingers on because it often requires time for impressions (as sometimes for persons) to realise that there is no longer reason for them to usurp the whole field—that much missionary work has been planned, financed, and conducted on unscientific lines has not been without justification in the past. But Science, or its anthropological side, has—though it did not create it—so enormously developed the study of comparative religions as to have practically shifted the standpoint of missionary policy on to a new, and much surer, foothold.

(c) In the same personal connection with regard to the missionary, must be noted the priceless contributions of Science towards the physical health of the missionary as a man. Thus the change brought about in the health-record of the Universities' Mission to Central Africa during recent years, though the enforcement by its Medical Board of the suggestions of modern Science as to the sanitation of dwellings and their surroundings, the frequency of furlough, the standard of health to be reached before return from furlough, etc., can be described as nothing short of a revolution. In the same way tells the value of inoculation against plague, amongst Indian missionaries. And I understand that the Society for the Propagation of the Gospel has so strongly realised the value of inoculation against typhoid as to have considered the possibility of enforcing, and to have decided upon the advisability of urging, it upon all its missionaries.

Owing to the extreme brevity (only two days) of the notice that
I might possibly make any contribution to the discussion of Mr. Baylis' interesting paper, and owing to heavy pressure of immediate engagements at the moment, I am conscious that the above are but disconnected remarks, possibly of little or no service, and certainly poorly expressed; and it is therefore a duty to add that, if in my haste I have so worded any of them as to suggest anywhere an impression of inconsistency with any principle of the full Christian position, such impression does not represent my mind, and I would wish to cancel any wording or reasoning which may have seemed to warrant it.

The Secretary also read the following from Dr. C. F. Harford:

I am very much obliged to you for sending me the interesting particulars about the Victoria Institute. I have the greatest possible sympathy with the aims and objects of the Institute which I think was never more needed than at the present time.

It seems to me that a great aim of a large number of theologians of the day seems to be to accentuate the possible divergencies between scientific and philosophical thought and revelation. I consider that this is wholly unscientific on their part and needs to be met by co-operation on the part of scientific men.

I hope that in the discussion at the meeting it may not be forgotten that in medical matters Missions have done a great deal for science. Our Medical Missionaries all over the world are contributing to science, and in a Society of which I have the honour of being one of the Secretaries, the Society of Tropical Medicine and Hygiene, we particularly value the co-operation of Medical Missionaries and have had many papers from them. Perhaps too the fact of Livingstone College training ordinary Missionaries to go out and help to spread the effects of science concerning health all over the world may be regarded as in some sense a contribution of Christian Missions to science.

Mr. Schwartz said: I congratulate the lecturer on the broad, tolerant, and moderate paper which he has written. Such extracts as "Science and Christianity are in our view revealed by the same Lord." "Man is just as truly linked with God the Super-human as he is with physical nature." "Before all else he (the missionary) looks for tokens of the presence, the working, the grace, of the living God, in the morals and religion of all the races of mankind," are all
very admirably put, but do not appear to support the contention that Christianity alone is inspired and that other religious systems are the reverse. I fully admit that the teachings of Christ are indeed the supreme revelation of God, as suitable for the low-type savage’s guidance, as they are for our late noble Queen Victoria; but the pseudo-Christianness of pre-Christian Paganism and post-Christian metaphysics now offered to the heathen has not in my opinion obtained even the moderate amount of success claimed by our fair-minded lecturer. The contention that “Christianity is the only religion that could become quite supreme without limiting the field of science,” and description of Heathenism as a “debased form of life” is perhaps hardly fair; it is true of original Christianity, but must we refuse it to original Buddhism? As Sir Edwin Arnold forcibly expresses it in the introduction to The Light of Asia. The extravagances that disfigure the record and practice of Buddhism are to be referred to that inevitable degradation which priesthoods always reflect upon great ideas committed to their charge. The power and authority of Gautama’s original doctrines should be estimated by their influence not by their interpreters. This is also largely true of Christianity likewise, the Christian middle ages, nay, parts of Spain and Southern Italy to-day, are little above the “debased Heathenism,” and are certainly as superstitious and anti-scientific. “That science helps the missionary by the prestige it inevitably gives him” that he is described as the “angelic healer from over the sea” is true, but is it quite honest to take advantage of the superstitious linking of the magic-medicine man with religion, to inspire, awe, and deceive? If done frankly in Christian brotherly-love and following the example of Christ it is wholly admirable, but let there be no trading in superstition. The author’s statement that “missions are likely to be the hottest field of battle between the forces for and against the religion of Jesus Christ” is undoubtedly true, but I think that he will frankly admit that there are many orthodox people at home who, like Canon Taylor, do not support missions as at present carried on, and many ecclesiastics and laymen abroad who hold aloof from them.

I read last Saturday in the Edinburgh Review that in Uganda “Missionaries taught that polygamy was wicked and tried to introduce monogamy which, unsuited to the past habits and present civilisation of the people, has led to a great deterioration of
feminine virtue, and has been attended with effects no less appalling than sleeping sickness."

Our lecturer also refers to the "part that even the poorest religion has played in sustaining social bonds and affording sacred sanctions for the crudest code of morality."

With respect to morals I am an humble student of anthropology and I fail to see why the natural evolution of morality from crude beginnings should not fit as easily into modern conceptions of an ultimate inspired revelation through Christ as physical evolution has been made to do without destruction of Faith. I thoroughly agree with our lecturer that a philosophical basis of morals is unsuited as motive power alone.

Mr. Baylis in reply said: I owe an apology to the meeting for not making it clear that my quotation on the top of p. 116 from the World's Missionary Conference Report only refers to the lower forms of heathenism; I do not think it would be fair, and it was not intended, to apply it to all.

The remark which the last speaker took exception to, as to Christianity being the only religion which could become quite supreme without limiting the field of science, is Professor Gwatkin's, and I believe it to be perfectly true. It is impossible for all the old religions of the East to hold their own in face of the progress of modern science.

I shall be happy to reply to Mr. Schwartz’s strictures on the work in Uganda by sending him full evidence direct from the field which will correct his statements, and I hope satisfy him that missions have been a real success there, as I have said. With regard to another point he has raised I wish to say that so far from monogamy being a failure in Uganda, the native parliament in Uganda has passed a law requiring monogamy, and the first prosecutions for bigamy have lately taken place.