JOURNAL OF THE TRANSACTIONS

OF

THE VICTORIA INSTITUTE.

VOL. LVII.

JOURNAL OF

THE TRANSACTIONS

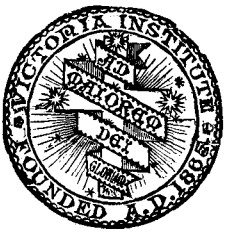
OF

The Victoria Institute,

OR,

Philosophical Society of Great Britain.

VOL. LVII.



LONDON:

(Published by the Institute, 1, Central Buildings, Westminster, S.W.1.)

1925

LONDON:
HARRISON AND SONS, LTD., PRINTERS IN ORDINARY TO HIS MAJESTY,
ST. MARTIN'S LANE.

PREFACE.

THE Papers in this volume—the fifty-seventh of the series—cover a wide range of investigation and thought, and in some of them the element of speculative inquiry will be detected by the careful reader. It is, however, firmly believed that, taken as a whole, the present series of Essays represents a serious endeavour to encourage sober inquiry and to stabilize thought in regard to issues which have a vital relation to the Christian faith.

The contributions to Oriental study as it bears upon Holy Scripture, and the tracking of ancient peoples and nations that are named therein, are significant, and in every case they embody the fruits of up-to-date research. In cases where less useful results have found expression in the Papers themselves, then the Discussion which has followed has more than once thrown light upon dark and difficult problems. Professor Albert T. Clay, whose Paper on "The Early Civilization of Amurru" appears in this volume, has passed to his rest since the Essay was read. He will be greatly missed in the world of Oriental investigation.

The Paper on "Great Britain and the Palestine Mandate" called attention to a subject of profound interest from various points of view; and while the political aspect was indifferent to the acknowledged platform of the Institute, there could not but be deeper and more permanent thoughts stirred in many minds as Sir Wyndham Deedes dealt with a subject which he has made his own through personal examination in the Holy Land, as well as prolonged study in an ever-growing field of literature, official and otherwise.

The Essay by Professor McCready Price was read on a day set apart for a Paper to be submitted by the late William Jennings Bryan. The failure of the American statesman, through stress of engagements, to send a Paper that had been promised, afforded opportunity for the Langhorne-Orchard Prize Essay to be read at a time when the subject of Organic Evolution was "in the air." While no one would for one moment say that the last word has been spoken or written upon Professor Price's subject, "Revelation and Evolution," nor yet upon the special geological theories which he propounds, yet on many hands witness has been borne to the importance of the facts and the value of the arguments presented in reply to the inquiry whether, in sober fact, it is possible to harmonize Divine Revelation and the Evolutionary Theory as it is popularly held to-day.

Though particularizing as to certain Papers now presented, we would not for one moment suggest that the other Essays are of secondary interest or value. Each of them, we are convinced, has a message for the present time, and as a whole they are confidently commended to the careful study of Members and Associates of the Institute, and to others, in various lands, who year by year look to the *Journal* of Transactions for the enunciation of problems, scientific and philosophical, treated with mental candour, and in a spirit of submission to the revealed will of God.

Signed on behalf of the Council,

J. W. THIRTLE,
Chairman of Council.

November, 1925.

CONTENTS.

VICTORIA INSTITUTE.

REPORT OF THE COUNCIL FOR THE YEAR 1924.

READ AT THE ANNUAL GENERAL MEETING, MARCH 23RD, 1925.

1. *Progress of the Institute.*

The Council of the Victoria Institute have the pleasing duty to present to the Members and Associates of the Society their 56th Annual Report. They are glad to note an encouraging total increase in the Membership. The average attendance has been good and the interest in papers well sustained. Without making invidious distinctions, the papers by Drs. Kyle and Naville, on "The Problem of the Pentateuch from the Standpoint of the Archæologist," and "Deuteronomy a Mosaic Book" respectively, were weighty contributions to present-day problems of Biblical Criticism, and it was hoped that some champions of the Higher Critical School would be present to defend their citadel, but such hopes were disappointed. The Council are glad that both these learned supporters, the latter of whom has this year become a Vice-President of the Society, have promised papers in the present Session. The place of President has not yet been filled, the Council feeling that it is better in such an important matter to "hasten slowly."

2. *Meetings.*

Eleven ordinary meetings were held during the year 1924. The papers were :

"Egypt in the days of Akhenaten and Tutankhamen," by WILLIAM DALE, Esq., F.G.S., F.S.A. (Illustrated by special lantern slides lent by a well-known Egyptian Explorer.)

Lieut.-Colonel G. Mackinlay in the Chair.

"The Problem of the Pentateuch from the Standpoint of the Archæologist," by the Rev. M. G. KYLE, D.D., LL.D., President of Xenia Theological Seminary, U.S.A.

Dr. James W. Thirtle, M.R.A.S., F.R.G.S., in the Chair.

"The Historical Value of the Book of Jonah" (being the Gunning Prize Essay for 1923), by E. J. SEWELL, Esq.

Prof. T. G. Pinches, LL.D., M.R.A.S., in the Chair.

"Geology in its Relation to Scripture Revelation," by Professor GEORGE MCCREADY PRICE, M.A.

William Dale, Esq., F.G.S., F.S.A., in the Chair.

"The Johannine Authorship of the Fourth Gospel."

The Rev. Arthur H. Finn in the Chair.

"Telepathy," by WILSON EDWARDS LESLIE, Esq.

Dr. James W. Thirtle, M.R.A.S., F.R.G.S., in the Chair.

"The Influence of John Calvin down the Centuries on the Religious and Political Development of the Protestant Nations," by Professor F. F. ROGET, of Geneva.

Dr. James W. Thirtle, M.R.A.S., F.R.G.S., in the Chair.

"The Making of Men," by ALFRED T. SCHOFIELD, Esq., M.D., M.R.C.S.

Lieut.-Colonel G. Mackinlay in the Chair.

"Deuteronomy a Mosaic Book," by Professor E. NAVILLE, D.C.L., LL.D., F.S.A.

The Rev. Arthur H. Finn in the Chair.

"The True Harmony of Man," by Colonel HARRY BIDDULPH, C.M.G., D.S.O., R.E.

Major-General Sir George K. Scott-Moncrieff, K.C.B., K.C.M.G., in the Chair.

The Annual Address: "The Philosophy of Modernism," by the Rev. CHARLES GARDNER, B.A.

Alfred W. Oke, Esq., B.A., LL.M., in the Chair.

3. *Council and Officers.*

The following is the list of the Council and Officers for the year 1924 :—

President.

The Very Rev. H. Wace, M.A., D.D., Dean of Canterbury (the late).

Vice-Presidents.

Rev. Prebendary Fox, M.A.
Lieut.-Col. George Mackinlay, late R.A.
Alfred T. Schofield, Esq., M.D., *Chairman of Council.*
Professor Edouard Naville, D.C.L., LL.D.

Council

(In Order of Original Election.)

Prof. T. G. Pinches, LL.D., M.R.A.S.
Right Rev. Bishop J. E. C. Welldon, D.D.
Sydney T. Klein, Esq., F.L.S., F.R.A.S.
J. W. Thirtle, Esq., LL.D., M.R.A.S.
Alfred William Oke, Esq., B.A., LL.M., *Deputy Chairman.*
Sir Robert W. Dibdin, F.R.G.S.
H. Lance Gray, Esq.
John Clarke Dick, Esq., M.A.
William Hoste, Esq., B.A.
Alfred H. Burton, Esq., B.A., M.D., C.M.
Theodore Roberts, Esq.
Lieut.-Col. F. A. Molony, O.B.E., late R.E.
Lieut.-Col. Hope Biddulph, D.S.O., late R.F.A.
W. Dale, Esq., F.S.A., F.G.S.
D. Anderson-Berry, Esq., M.D., LL.D.
Major H. Pelham-Burn, late Rifle Brigade.
Sir George King, M.A.
Lieut.-Col. Arthur H. D. Riach, late R.E.
Wilson Edwards Leslie, Esq.

Honorary Treasurer.

Sir George King, M.A.

Honorary Editor of the Journal.

Lieut.-Col. F. A. Molony, O.B.E.

Honorary Secretary, Papers Committee.

Lieut.-Col. Hope Biddulph, D.S.O.

Honorary Secretary.

William Hoste, Esq., B.A.

Auditor.

E. Luff-Smith, Esq. (Incorporated Accountant).

Secretary.

Mr. A. E. Montague.

4. *Election of Council and Officers.*

In accordance with the rules, the following Members of the Council retire by rotation :—

Alfred W. Oke, Esq., B.A., LL.M.
Sir Robert W. Dibdin, F.R.G.S.
Alfred H. Burton, Esq., M.D., C.M.
Major H. Pelham-Burn.

And all offer themselves and are nominated by the Council for re-election ; also the Auditor, Mr. Luff-Smith, who, being eligible, offers himself for re-election.

5. *Obituary.*

The Council regret to announce the deaths of the following Members and Associates :—

George J. Chapman, Esq., M.A., F.Z.S.; E. J. Sewell, Esq. (Member of Council); The Very Rev. Henry Wace, D.D., Dean of Canterbury (President of the Society); F. J. Waring, Esq., C.M.G.; A. Gregory Wilkinson, Esq.; William Duncan White, Esq.; Sir W. Mackworth Young, K.C.S.I.

6. *New Members and Associates.*

The following are the names of new Members and Associates elected up to the end of 1924 :—

MEMBERS.—Edwin L. Ash, Esq., M.D., B.S., M.R.C.S.; Robert Caldwell, Esq., F.R.G.S.; W. Bell Dawson, Esq., M.A., D.Sc., M.Inst.C.E.; William C. Edwards, Esq.; His Excellency Prof. Charles Hildebrand, Ph.D., LL.D.; Pastor W. Percival-Prescott; Rev. Canon H. E. Nolloth, D.D.; The Rev. E. Morris Wherry, M.A., D.D.

ASSOCIATES.—The Rev. J. J. R. Armitage, M.A.; Rev. Lucy T. Ayres; Dr. C. G. S. Baronsfeather; Mrs. C. Agnes Boyd; the Rev. Charles Boutflower, M.A.; Miss A. A. Browne, R.R.C.; Laurence T. Chambers, Esq.; Wilfrid M. Clayton, Esq.; the Rev. Thomas Coyle; the Rev. Stephen S. Farrow, B.D., Ph.D.; Mrs. M. L. Gough Griffiths; Miss Nellie Gulland; the Rev. James Holroyde, M.A.; Mrs. E. S. C. Hutchinson; the Rev. Maurice B. Ingle, A.M., LL.D.; Mrs. M. L. Jones; W. R. Lane, Esq.; the Rev. Canon F. R. Lawrence, M.A.; Henry C. W. Lewis, Esq.; Louis H. Loft, Esq.; R. G. Lundy, Esq., I.S.O.; the Rev. Prof. Julius R. Mantey, Th.D.; the Rev. R. J. H. McGowan; the Rev. David M. McIntyre; Major J. A. McQueen, D.S.O., M.C.; Clifford Newton, Esq.; the Rev. C. W. Norwood, B.D.; Miss Laura C. Ord; Prof. Cyril Parker, M.A., Sc.D., Ph.D.; H. J. Peirce, Esq.; Ernest Rapp, Esq.; the Rev. George W. Ridout, D.D., F.R.G.S.; Miss Ellen Rouse; Miss Mabel W. Rouzee, B.A.; William Johnston Scales, Esq.; David Somerville, Esq.; Mrs. Maude Stokes; the Rev. W. D. Vater; Henry Walker, Esq.; the Rev. Prof. J. H. Webster, D.D.; E. R. Wheeler, Esq., M.B., B.S., F.R.C.S.; the Rev. Stanley White, B.D.

LIFE ASSOCIATE.—William Wardle Sales, Esq.

7. *Number of Members and Associates.*

The following statement shows the number of supporters of the Institute at the end of 1924 :—

Life Members	14
Annual Members	104
Life Associates	55
Annual Associates	297
Missionary Associates	14
Library Associates	27
Total	511

This again shows a steady increase in numbers, and the Council again ask for the co-operation of Members and Associates in bringing the work of the Institute before those who desire to support its aims by seeking election. Why should not an effort be made to add another hundred to our present total ?

8. *Special Donations.*

F. T. Lewis, 18*s.*; Rev. John Tuckwell, 5*s.*; Colonel W. Sidebottom, J.P., £1; Anonymous (per Prof. Pinches), £100; E. J. Sewell, Esq., £3.

9. *Finance.*

We are glad to say that the financial position is becoming more stable, and that without any special appeal for the financial support of Members we were able to close the year more satisfactorily than has been the case for some time past.

10. *The Langhorne Orchard Prize.*

This new triennial prize was offered this year for the first time, and the subject proposed was "Can Evolution and the Biblical Account of Creation be Harmonized ?" The prize has not yet been adjudged, but will be shortly.

11. *Conclusion.*

The Council have noticed that only a few Members and Associates take part in the discussions. It is a great relief and interest when new voices are heard, and the Council hope that in the future this may more be the case. This naturally demands a little preparation, and the Council would remind Members that they are entitled to an advance copy of papers if they inform the Secretary of their desire, and Associates that, by arrangement, they may enjoy a like privilege. The Council are sometimes reproached that they fail to undertake papers on the many ethical and philosophical problems that press upon attention. This may be true in part. The Council welcome suggestions from supporters, and ask such to believe that if their advice is not carried out it is for some reason which seems valid and sufficient. Certainly the Council does not think it lost time to turn aside now and again from more strenuous problems to questions of scientific and archæological discovery, which have often a close bearing on the general objects of the Institute.

Signed on behalf of the Council,

JAMES W. THIRTLE,
Chairman of Council.

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1924.

EXPENDITURE.

	£ s. d.	£ s. d.
To Rent, Light, Cleaning and Hire of Lecture Room	74 11 0	
,, Salary	200 0 0	
,, National Insurance	2 8 9	
,, Life Assurance	2 6 1	
,, Printing and Stationery....	267 14 3	
,, Expenses of Meetings	2 13 0	
,, Library Purchases	1 8 0	
,, Postages	39 16 3	
,, Audit Fee	3 3 0	
,, Fire Insurance	0 12 0	
,, Bank Charges and Sundries	2 4 2	
		596 16 6
		£596 16 6

INCOME.

	£ s. d.	£ s. d.
By SUBSCRIPTIONS :—		
95 Members at £2 2*s.*	199 10 0	
1 Member at £1 1*s.* (Life Associate)	1 1 0	
273 Associates at £1 1*s.*	286 13 0	
Proportion of Life Subscriptions	10 10 0	
		497 14 0
,, DIVIDENDS received, *less* Tax		9 14 0
,, SALE OF PUBLICATIONS		68 4 5
		575 12 5
,, BALANCE, being excess of Expenditure over Income for the year 1924		21 4 1
		£596 16 6

BALANCE SHEET, 31ST DECEMBER, 1924.

LIABILITIES.

	£ s. d.	£ s. d.
SUBSCRIPTIONS PAID IN ADVANCE		15 15 0
SUNDRY CREDITORS for :—		
Printing and Stationery	123 18 6	
Audit Fee	3 3 0	
		127 1 6
LIFE SUBSCRIPTIONS :—		
Balance at 1st January, 1924	82 19 0	
Additions	21 0 0	
	103 19 0	
Less Amount carried to Income and Expenditure Account	10 10 0	
		93 9 0
TRACT FUND :—		
Balance at 1st January, 1924	66 15 0	
Add Sales	22 2 6	
		88 17 6
"GUNNING PRIZE" FUND :—		
Balance at 1st January, 1924	51 9 0	
Add Dividends received	14 1 3	
Income Tax recovered	3 17 1	
		69 7 4
"LANGHORNE ORCHARD PRIZE" FUND (see *contra*)		200 0 0
Balance at 1st January, 1924....	12 11 5	
Add Dividends received	7 0 6	
Income Tax recovered	2 0 8	
		21 12 7
		£616 2 11

ASSETS.

	£ s. d.	£ s. d.
CASH AT BANK ON CURRENT ACCOUNT		176 6 10
Ditto "Gunning Prize" Account		69 7 4
Ditto "Langhorne Orchard Prize" Account		21 12 7
SUBSCRIPTIONS IN ARREAR :—		
Estimated to produce		29 8 0
INVESTMENTS :—		
£500 2½ per cent. Consolidated Stock (Market value at 57¼ = £286 5*s.*)		
Gunning Fund :—		
£508 Great Indian Peninsular Railway 3 per cent. Guaranteed Stock (Market value at 97 = £492 15*s.* 2*d.*).		
Langhorne Orchard Fund :—		
£258 18*s.*—£3 10*s.* per cent. Conversion Stock at cost		200 0 0
INCOME AND EXPENDITURE ACCOUNT :—		
Balance at 1st January, 1924	203 7 1	
Add Excess of Expenditure over Income for the year 1924	21 4 1	
	224 11 2	
Deduct Donations received	105 3 0	
		119 8 2
		£616 2 11

I have examined the foregoing Balance Sheet with the Cash Book and Vouchers of the Victoria Institute and certify that it is correctly made up therefrom. I have verified the Cash Balances and Investments. A valuation of the Library and Furniture has not been taken.

15, Old Queen Street, Westminster, S.W. 1.
11*th March*, 1925.

E. LUFF-SMITH,
Incorporated Accountant.

THE ANNUAL GENERAL MEETING

OF THE

VICTORIA INSTITUTE

WAS HELD IN COMMITTEE ROOM D, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, MARCH 23RD, 1925, AT 3.30 P.M.

DR. JAMES W. THIRTLE, M.R.A.S., F.R.G.S., IN THE CHAIR.

After the notice convening the Meeting had been read by the Hon. Secretary, and the Minutes of the last Meeting had been read, confirmed and signed,

The CHAIRMAN announced that the Langhorne Orchard Prize had been adjudged to Professor George McCready Price, M.A., a Member of the Institute.

The CHAIRMAN then drew the attention of the Members to the Report for 1924, which they held in their hands, and which he presumed might be taken as read. He then called on Mr. E. Luff-Smith, the Auditor, to make some remarks on the financial statement, which was followed by a discussion in which Messrs. W. Dale, H. Lance-Gray and others took part.

The CHAIRMAN then called upon Mr. W. C. EDWARDS to move his resolution.

Resolution No. 1. Moved by Mr. WILLIAM C. EDWARDS, seconded by Mr. W. H. FRIZELL, J.P. :

" That the Report and Statement of Accounts for the year 1924, presented by the Council, be received and adopted, and that the thanks of the Meeting be given to the Council, Officers and Auditors for their efficient conduct of the business of the Victoria Institute during the year."

This was passed unanimously.

Resolution No. 2. Moved by Dr. JAMES W. THIRTLE, seconded by Mr. W. HOSTE :

" That Mr. Alfred W. Oke, B.A., LL.M., Sir Robert W. Dibdin, F.R.G.S., Dr. Alfred H. Burton, B.A., C.M., and Major H. Pelham Burn, retiring Members of Council, be re-elected."

Resolution No. 3. It was also moved and seconded by the same gentlemen :

" That Mr. E. Luff-Smith, the retiring Auditor, be re-elected at a fee of three guineas."

This was also agreed upon unanimously.

Resolution No. 4. Moved by Mr. W. HOSTE, seconded by Mr. W. DALE :

" That the cordial thanks of this Meeting be passed to Dr. James W. Thirtle for presiding on this occasion."

This was passed by acclamation, and the Meeting was then declared closed.

669TH ORDINARY GENERAL MEETING.

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W. 1, ON MONDAY, DECEMBER 8TH, 1924, AT 4.30 P.M.

DR. JAMES W. THIRTLE, M.R.A.S., F.R.G.S., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed, and the Honorary Secretary announced the following Elections since the last Meeting:—W. Bell Dawson, Esq., M.A., D.Sc. (son of the well-known scientist, Sir William Dawson, an honoured Member of the Victoria Institute), as a Member, and the Rev. S. S. Farrow, L. T. Chambers, Esq., W. J. Scales, Esq., Miss A. A. Browne, R.R.C., Mrs. E. S. C. Hutchinson, the Rev. W. D. Vater, E. R. Wheeler, Esq., M.D., F.R.C.S., Miss M. W. Rouzee, B.A., Wilfred M. Clayton, Esq., the Rev. James Holroyde, M.A., and Louis H. Loft, Esq., as Associates.

The Chairman then introduced Professor T. G. Pinches, LL.D., M.R.A.S., the well-known Assyriologist, to read his paper on "The Worship of Idols in Assyrian History in Relation to Bible References."

THE WORSHIP OF IDOLS IN ASSYRIAN HISTORY IN RELATION TO BIBLE REFERENCES.

By PROFESSOR THEOPHILUS G. PINCHES, LL.D., M.R.A.S.

IN all the noteworthy things in Jewish history, as told in the Old Testament, there is probably nothing which strikes the reader more than the unique position occupied by the chosen people owing to the religious isolation in which they found themselves. On every side, far or near, they were surrounded by heathendom. And this fact comes to our notice so often that the reader is tempted to take it as a most natural state of things, as though it had existed from the beginning of the history of the nations of the Near East; but the truth of the matter seems to be, that there was no monotheism in the Mediterranean coast-lands before the arrival of Abraham, who, about 2,000 years before Christ, brought that creed with him from Ur of the Chaldees, when Amraphel, who is identified with Ḫammurabi, the Ammurapi of a late Assyrian letter, ruled over Western Asia. Though this letter is of no great

importance, it shows that he had a certain amount of popularity in the northern kingdom of Assyria, just as the fragments of an Assyrian copy of his laws show that he was also renowned as a lawgiver in the Mesopotamian tract. That his laws should have been known—and probably well known—in Syria and Palestine during his lifetime, when he was lord of Amurru—the land of the Amorites—is not without its significance, and that fact may have some bearing on the subject of idol-worship in the district with which we are now dealing.

Abraham, the father of the Israelites, on arriving in Palestine, found himself in a land which, like Babylonia, whence he had come, possessed quite a pantheon of gods. In this district there were not only the native deities, but also many from other countries, including Babylonia and, possibly, Assyria, though the latter country had not yet attained the renown which it acquired in later centuries, when it had thrown off the Babylonian yoke. The fact that Babylonian deities had reached Palestine and the neighbourhood before the arrival of Abraham implies considerable intercourse between Babylonia and the western tract long before the time of Ḫammurabi, the king who ruled in Abraham's time. And in this connection we may quote the name of the goddess Ištar, who was always known in that district as Ashtoreth, with a feminine suffix which certainly did not belong to the name, seeing that the original language —that in which the name arose—was the genderless Sumerian. In connection with the worship of this important goddess in the Near Eastern world of 2,000 years before Christ it is noteworthy that a tablet from Babylonia in the British Museum seems to give no less than ten identifications with a divinity called *Ašratu*^{m}, which is probably the *ashērah*, "grove," of the Old Testament and the English translations. Such a text as this list naturally shows that as yet we have but meagre details of the heathen worship of the Canaanites.

Of all the Babylonian deities which we should expect to find sympathetic to the Hebrews, we may take the Babylonian king of the gods, Merodach, as being the most to their liking. This, in fact, seems to have been really the case, for, as I have pointed out before, a name containing, as its main element, that of the deity in question, namely, Mordechai (better Maredachai) introduced during the Babylonian captivity, is to be found among the Jews even to-day. But it was not the Babylonian Merodach whom they thus honoured, but Jahwah

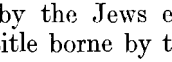
under his Babylonian name. The only passage where Merodach is mentioned—and that as a Babylonian god—is Jer. l, 2 :—

"Declare ye among the nations and publish, and set up a standard; publish, and conceal not; say: Babylon is taken, Bel is put to shame, Merodach is dismayed (or broken down): her images are put to shame, her idols are dismayed (or broken down)."

Notwithstanding that Bel and Merodach are here spoken of as though they were different deities, they were really one and the same; for although all the gods of Babylonia were, in their degree, *bêlē* or "lords," Merodach bore this title in a special sense as *bêl bêlē*, "lord of lords"—chief of all the other gods bearing that title. As a fine Babylonian hymn handed down to us by the Assyrians tells us, he was :—

The merciful one among the gods,
The merciful one who loves to give life to the dead—
Merodach, king of heaven and earth.
King of Babylon, lord of Ê-sagila,
King of Ê-zida, lord of Ê-maḫtila,
Heaven and earth are thine—
Yea, heaven and earth are thine;
The charm of life is thine,
The philtre of life is thine,
Sar-azaggu, *gu abzu* (the glorious pronouncement, the word of the Deep), is thine.
Mankind, the black-head race (= the Babylonians),
The creatures of life, as many as announce a name (and) exist in the land,
The regions four as many as exist,
The Igigi of the host of heaven and earth, as many as exist—
Verily to thee are their ears [directed].

An idealized idolatry, this, which sets up a king of heaven and earth, and makes everything, even the "five-one-one"—the *Igigi*—the five planets and the sun and the moon, subject to him, without acknowledging their likeness to him except by setting the divine prefix before the word. Was it this conception of the lord of creation on the part of the Babylonians which appealed to the Hebrews and led them to look indulgently upon the personality of their chief god? And here it is worthy of note, as the fact has a tendency to be overlooked, that there

were, in ancient times, several statues of gods—seven, or eight, or nine in number—set up at Babylon, near the gate (probably the chief entrance to the city), and each of those gods bore a title. The teacher, we find (or was it the preacher?—the word is broken away) was an image of Nebo;  , *awelu sag-šub-bara*, meaning, among numerous other possible significations, "the chief overthrowing the boundary," or the like, was the "official title," as it were, of Nergal, and if this be the rendering it should designate him as god of war—or, perhaps better, unwarranted hostile (surprise) attack. After this comes *mubarrû*, "the discerner," the title of the god , *d. Di-kud*—that is, "judgment-deciding," in Semitic *dayanu*, "the judge,"—a Babylonian word taken into Hebrew under the form of דַּיָּן, *dayan*, used by the Jews even now. Last on the list is the *zazzaku*, the title borne by the god Papilsag, well known to the Assyriological student as the equivalent of Architenens, "the Archer" of the signs of the Zodiac. These divine names occur on the reverse of that well-known tablet first published in the *Journal* of the Victoria Institute, vol. xvi, pp. 8–10—the "monotheistic tablet," on the obverse of which 14 or more Babylonian deities are identified with Merodach. In this important inscription *Enlil*, or *Illil*, the אֵלִיל, *êlîl* (plural אֵלִילִים, *êlîlîm*, "idols" of the Hebrews), appears as "Merodach of Lordship and counsel"—*Maruduk ša bêlûtu u mitluktu*, the last word in the sense, apparently, of reflection and consideration, with a view to the rule either of the heavenly kingdom, which was Merodach's domain, or any earthly kingdom to whose ruler he might give advice. Though we only know this inscription from the late copy published in the *Journal* of this Institute, I am inclined to think that it dates from the time of the first Dynasty of Babylon—that of Ḥammurabi—and if this be the case, the monotheistic doctrine contained therein may easily have emanated from "the land of the Amorites," the Semitic predecessors of the Jews. Upon this point Prof. Clay, of Yale, will probably, later on, enlighten us. He thinks that the Babylonian story of the Flood may have originated with them, and early took on that monotheistic form which Genesis has handed down to us.

But there is no evidence that the Amorites were in any sense monotheists—the identification of all the gods with Merodach was a belief held by those, in the time of the "dynasty of Babylon" (which was, it would seem, a foreign dynasty), who

were in the army of Sumu-abi ("Shem is my father"), the first king. And this suggests the probability that there were in all polytheistic lands a section of the people who did not believe in a multiplicity of gods. Ḫammurabi, of the foreign dynasty of Babylon, therefore accepted this doctrine of their identification with Merodach and had the tablet declaring it set up after his assumption of regal power in the twentieth century before Christ.

But the Amorites of Palestine did not accept Merodach; they seem to have held to Merodach's predecessor—a sun-god like him—namely, Tammuz. Of all the deities of Semitic heathendom there is hardly one who has a more interesting mythological career than this favourite of the Palestinian tract and of the women of Israel, for they must have been worshippers of Tammuz long before the women of Jerusalem lamented for him in the court of the temple at Jerusalem, as related by Ezekiel.

The worship of Tammuz goes back to an exceedingly early date, as the name is found in the temple accounts of the time of Lugal-anda and Uru-ka-gina, who reigned at Lagaš about 3,000 years before Christ. The full form of the name Tammuz in the original language, Sumerian, is Dumu-zida, meaning "the true" or "faithful son," probably referring to the belief that he constantly kept his word and went down to pass the winter months of every year with Ereš-ki-gal (Persephone) in the underworld. Though always written *Dumu-zi(da)*, it is contended that the name of the god was pronounced *Tammuz* in Babylonia as well as in the Palestinian tract. From this name, however, that of the fourth month of the Babylonian year, *Du'uzu* (for *Duwuzu*, and this, again, for *Dumu-zi*), Tammuz, was derived, which seems to argue against the pronunciation suggested, except among those Babylonians and Assyrians who came into contact with the Palestinians. Naturally a change in the pronunciation would have obscured the etymology, which must have been known to the scribes.

The first element of the name is easy, *dumu* being the Sumerian word for "child," "son." *Zida*, shortened to *zi*, is probably to be rendered in Semitic Babylonian by a form of the root *kânu*, "to be set, fixed, true, faithful." It also stands for *îmnu*, "the right (hand)," which is the Akkadian form of the Hebrew יָמִין, *yāmīn*, with the same meaning. This would make the name Tammuz practically the same in meaning as the Hebrew

בִּנְיָמִין, *Bin-yāmin*, Benjamin, the usual rendering of which is "son of (the) right hand." A right-hand son naturally suggests a faithful supporter, like a master's right-hand man. Other meanings of *zida* seem to contain the ideas of greatness, height, and splendour.

In view of the importance of this west-Semitic deity I give some of his other names from *Western Asia Inscriptions* II, pl. 59. After mentioning the attendants of the sun-god Šamaš, who were named *Kittu*^{m} and *Mêšaru*^{m}, "justice and righteousness," we have a dialectic form of the name of Tammuz, *Ṭu-zizi*, explained (though broken here) by the regular form, [*Dumu*]-*zi*, which is carried into the Semitic explanatory column by means of the characters *šu-ma*, "the same," and after this we have another of his names, very rarely found in the inscriptions—$^{d.}$*U-libir-si* | $^{d.}$*En-ubar-si* | $^{d.}$*Dumu-zi*, Tammuz.

The meaning of this three-element name is instructive; it may be rendered as *Bêlu remūta mala*, "the lord filled with grace." As a sun-god, Tammuz is rightly classed, as here, with the attendants of Šamaš, the sun in a general sense, as seen all the year round, and not merely the luminary favouring the growth of the fruits of the earth and the living creatures thereon.

The attraction of the Israelites towards this deity is therefore not to be wondered at, especially when we consider the importance of the solar heat in nature. The lamentation, after the summer solstice, was only what might be expected in a nation surrounded by idolators still more devoted to heathen practices than the Jews. As for the Assyrians and Babylonians, they were influenced likewise by patriotic feelings. Whether the Hebrews used the hymns composed in Babylonia or not is uncertain, but we may imagine that they sang compositions of a similar nature to the extracts which I now quote after subjecting my older renderings to a further revision. The opening lines possibly refer to an enemy of the god :—

The ewe and her lamb he taketh ;
The goat and her kid he taketh ;
The ewe and her lamb he smiteth down ;
The goat and her kid he smiteth down.

Arise, then, go, thou hero, the road of No-return.
Ah hero—warrior, Lord-physician.
Ah hero—my hero, my god Damu.

Ah hero—son—my faithful lord.
Ah hero—god Lamga, lord of the outspread net.
Ah hero—*libir*, lord of sacrifice.
Ah hero—Gu-silim the bright-eyed.
Ah hero—thou who art my heavenly light.
Ah hero—*Ama-ušu-gal-ana*.*
Ah hero—brother, mother, heavenly vine.
He goeth, he goeth to the bosom of the earth—
He will cause abundance for the land of death.
(Variant translation :—The Sun-god hath made him great for the land of death.)

[Neither of these translations, suggested by Assyro-Babylonian scribes, however, seem to give the sense of the original words, which are best transcribed as follows :—

[*û*]-*zale* *û-zale* *kur* - *ugana* - *šu*
Daylight, daylight, for the land of death !]

The rest of this noteworthy paragraph I translate mainly from the original dialectic Sumerian :—

For the bitter grief, for the day of the descent,†
For the unpropitious month of thy year‡ ;
For the last road of thy people ;
For my acclaiming of the lord—
(Thou goest), hero, to the distant unseen land.

In suchwise reads, roughly, the non-Semitic Sumerian text. The Akkadian translation, however, is somewhat as follows :—

Filled with lamentation on the day when he fell and was in grief,
In an unpropitious month of his year,
To the road of the peoples' end (*or* mankind's rest),
At the cry of the lord (*or* my lord),
(Thou goest), hero, to the distant land which is not seen.

It is strange that the Akkadians should not have known exactly how to translate these remarkable lamentations, but such seems to have been the case. The wording, however,

* "Mother, great unique one (of) heaven."
† To the underworld. ‡ The month Tammuz.

suggests that there was some mysterious meaning in them, but this we have not time to deal with; it is enough to include here these few specimens, even though the renderings may not be altogether satisfactory.

It is naturally difficult to get away from the subject of the god Tammuz—his worship was so general in the Palestinian tract, as well as in Babylonia, and so many books have been written about it, from the Italian monograph of Lenormant to Sir James Frazer's noteworthy work, that any discussion of the importance of the cult in a paper such as the present is bound to give but a faint idea of its popularity—indeed, Tammuz seems to have become in Palestine almost like a national deity. In Babylonia, on the other hand, he was largely superseded by that more glorious sun-god, Merodach, whose worship seems not to have prevailed in the extreme west of Asia.

The heathen worship of the national god of the Babylonians seems, moreover, not to have affected the Israelites either; but notwithstanding this, it is needful to say something about it here. As I have already pointed out, the Jews were inclined to identify the chief of the Babylonian pantheon with Jahwah or Jehovah. But in stating this, I do not mean that they regarded Merodach as a separate deity from Jehovah; it was simply his name in another language.

Concerning Merodach and his merciful nature I have already spoken (p. 12), and a few examples of the worship addressed to him by the Babylonians may be of interest. It appears on Plate XXIX of Craig's *Religious Texts*:—

I will celebrate thy name (O) Merodach, the mighty one of the gods, governor of heaven and earth,

Who, having been well created, is alone supreme.

Thou bearest now heavenly divinity, sovereignty, power of uniting (?), royalty,

Thou embracest all wisdom, perfect in strength.

Beloved, counsellor, supreme prince, powerful, magnified,

He has caused his dominion to be glorious, he has prepared resistance—even A[nu ?].

In heaven thou art supreme, in earth thou art king, able in wisdom.

Fixing the totality of the habitations, holding the ends of the firmament and of the e[arth].

Thou now art made great among the gods, the image he hath created for thee Nudimmud hath [set]—

He who hath caused thee to hold the fates of the great gods set in thine hands.

He hath caused (them) to kiss they feet, they have spoken, they have blessed (thee), (even) the[y].

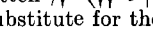
Here the text becomes defective, and though there are many more lines worth notice, I refrain from continuing the translation owing to its length. It will be seen, however, that though the other gods of the Babylonian pantheon are recognized, Merodach was, among the Babylonians, the supreme deity and lord of the universe. In this sense the Israelites regarded themselves justified in using his name as the equivalent of Jehovah.

Concerning the worship of the Assyro-Babylonian gods in Palestine we get but little information from the Old Testament. In the case of Baal, based upon Phœnician practices, or the Baalized worship of Jehovah, the places of worship were on the hill-tops, and among the trees. Here were to be found *Ashēras*, or wooden poles or masts of unknown shape, and possibly carved or draped in some distinctive way. Or a *maṣṣēbah*—either a single stone or a heap of stones, may have been set up to indicate the sacred nature of the place. At the accompanying altars offerings of the fruits of the earth and of the flocks were made; as to the rites performed, it is not my intention here to describe them. They had their own priests and prophets, and on the more important ceremonial occasions these leapt upon the altar, calling upon the god to show his power, and trying to induce him to do so by gashing themselves with knives. How far the out-door ceremonies of the Babylonians may have followed the same lines it is impossible to say, but the solemnity and decorum of their temple-worship was in many cases undoubted, even in the strange ritual which follows:—

3. . . . . dust of the shrine of the dust-god of the great gate;

4. dust of the crossways (?) of the regions (or of dusts), dust of the divine dove ;
5. who (is) Azaga the four-winged (?), dust of *ašammeti* (*?*) ;
6. dust of the prostitute's gate, dust of the night-gate ;
7. dust of the recruiter's gate, dust of the palace-gate ;
8. dust of the orchard(?)-gate, dust of the *sabû*-gate, dust of the road ;
9. dust of the orchardman's gate, dust of the carpenter's gate—these dusts,
10. all of them, thou shalt crush, thou shalt mingle in the river(-water),
11. cypress-oil in the midst thou shalt pour (?), the gate of the house of the . . .
12. thou shalt prepare a platform, pour out pure (*or* holy) water,* thou shalt set up a GAB-reed† before Ištar ;
13. 12 foods thou shalt apportion, food of oil thou shalt pour out, honey (and) cream thou shalt set on,
14. dates (and) rice(?) flour thou shalt heap up, a brazier‡ of cypress thou shalt set on,
15. A wether (or) a ewe thou shalt raise on to the platform, at its end
16. thou shalt tie it, and thou shalt place§ it on the right of the brazen image, (and) thus (the minister) shall say :—
17. "Ištar, Nanaa, and Kasbaya,‖
18. unto it (*i.e.*, the house) be helpful." This he shall say, and
19. the word of his heart he shall pronounce, and [i]n the house of the *sabû*
20. he shall write. That house in future days will be happy.
21. INCANTATION : Ištar, the mighty one of the great gods,
22. Exalted, brilliant, warlike Ištar,

---

* *Mê êlliti*, written  , *a azagga*.

† Possibly a substitute for the W. Semitic *ashērah*.

‡ Martin : *cassolette*, "perfume-box," "perfume-burner" (censor), *niknakku*.

§ The scribe's original evidently had , which he could not understand. He has therefore written  under this group, making , *tašahk-an*, "thou shalt place," the reading adopted here.

‖ Martin : *Gazbâ*.

23. Dominating, grand, Irnini, the lordly,
24. To me be helpful, thou createst and thou protectest,
25. Divinity of the people, goddess of men,
26. My counterpart of the people, my august one, Ištar,
27. Daughter of Anu, offspring of the great gods,
28. Giver of sceptre, throne, [and rule] to [all the rulers].

Here the obverse breaks off. Of the reverse the remains of eight lines are preserved, and read as follows :—

2. Thou shalt set up a GAB-reed . . .
3. A censor of cypress thou shalt place . . .
4. Thou shalt repeat the incantation 7 times, and [put on] a woollen garment, . . .
5. Into the water thou shalt pour. [Thou shalt repeat] the incantation 7 [times,]
6. The gate of the house thou shalt sprinkle, and [the slaughter ?]
7. Of an ox thou shalt make and [shalt set it] beneath a *ḫare*-[oven ?]

---

8. If a man (by) seal and the killing of a sheep, the driving (?) of a sheep to the river . . .
9. Tablet CXXXVth (of the series) *Nambur-bi.*

Notwithstanding its tedious length, this is one of the most interesting of the ritual tablets from Babylonia which the Assyrians have preserved to us. The collection of dust from the various places trodden by the feet of all the classes of men of which the writer of the text speaks is doubtless intended to symbolize the offering's benefit to all the inhabitants of the land, who naturally had a right to make use of it. In more than one passage in the Old Testament men are compared with dust, either because of its evanescence, or the impossibility of numbering its particles. Dust and water, however, formed part of the ceremony of the jealousy-test (Numbers v, 17 ff.)—analogous, but very different in its intention, to that of the Assyro-Babylonian Text here translated.* The mixing of the watered dust with oil was followed by the setting up of a

---

* In Lev. xiv, 41, where the dust was scraped away from an infected house, this was simply done as a scientific measure.

platform, and the offering of the fruits of the earth, a wether, and a ewe, thereon. When reading this part we realize that these preparations were connected with the asking of a blessing on what seems to have been a new house for the *sabû*—an unknown official, but possibly a vine-dresser. In the course of this invocation-ceremony Ištar (Ashtoreth), Nanaa, and Kaṣbaya were invoked. A noteworthy point in the address to these deities, however, is that the imperative verb contained therein is in the singular—perhaps because they were all regarded as indicating the same goddess, and therefore a single person. From its form, Kaṣbaya should be a gentilic noun, but, if so, its ending is masculine—for the feminine we should expect *Kaṣbaitu*^{m} instead of *Kaṣbaya*.

The goddesses having been invoked, the celebrant had apparently to write something of the nature of a blessing or good wishes on his own account, and place it in the *sabû's* house. Then follows the incantation to Ištar, giving her all the honorific terms to which she was entitled.

One of the most interesting references to the gods of Assyria—mythological creations worshipped first of all by the Babylonians—is in that interesting and characteristic passage in 2 Kings xvii, where it is recorded that the king of Assyria transported men from Babylon, Cuthah, Ava, Hamath, and Sepharvaim to the cities of Samaria to replace the exiled children of Israel. The new-comers, finding themselves a prey to the lions which infested Samaria, appealed to the king of Assyria to be taught the way of the god of the land, who, they believed, had control over the beasts, and could prevent their attacks. He therefore sent an Israelitish priest to teach them, and they combined the worship of their own gods with that of the worship of Jehovah.

"The men of Babylon made Sukkoth-benoth, and the men of Cuth made Nergal, and the men of Hamath made Ashima.

"And the Avites made Nibhaz and Tartak, and the Sepharvites burnt their children in fire to Adrammelech and Anammelech, the gods of Sepharvaim."

As there is no proof that Sepharvaim was Sippara of the Sun-god and of Anunitu^{m}, the identification of Adrammelech and Anammelech with the deities worshipped there is seemingly impossible, and Nibhaz and Tartak, worshipped by the Avites, were probably not Babylonian gods either. There remain,

then, only two deities with which we have to deal—Succoth-benoth and Nergal. As Succoth-benoth was worshipped by the men of Babylon, I conjectured some years ago that this must have been a name of Merodach, the god of the city, and published in the *International Bible Encyclopædia* a suggestion that the name should really be read *Sakut ban wâthi*, a variant for *Dikut ban mâti* (as Assyriologists would transcribe the words), the whole meaning "Sakut (for *Dikut*, the Judge), creator of the land"—a good title of Merodach. When writing this paper, however, I asked myself: Why not return to the old explanation that Succoth-benoth is a phrase, and means what it seems to mean—"Booths of daughters," or "maidens"? We all know the reputation of the Babylonians when it came to the worship of Ištar; Herodotus tells us all about it, as does also the *Epistle of Jeremy*, appended to the Book of Baruch. In this the women with cords about them, sitting in the ways, are described. And as many of them had to sit there a long time, it is not improbable that wooden booths were constructed for them, as a protection against the sun and the rain. In this case we may imagine that the King of Assyria deported to Samaria the more undesirable portion of the population of Babylon, who at once set up the most immoral of the customs connected with the worship of Ištar of Babylon there. But is it likely that they would have done this to the neglect of the worship of the king of the gods, the merciful Merodach, he who loved the giving of life? Besides, "booths of daughters" could hardly be objects of worship. There is still something to be said, then, for *Sakut ban wâth* as these exiles' way of saying *Sakut bani mâti*. Friedrich Delitzsch's comparison of Succoth with the Babylonian divine name *Sakkut* is rendered improbable by the fact that it does not designate one of the great gods of Babylonia, but simply one of the attendant-deities of Anu, the god of the heavens.

Clearer, and therefore more interesting, is the name of the god of Cuth, otherwise Cuthah, that interesting city about 18 miles north-east of Babylon. This site, which is now known as *Tel-Ibrahim*, "the mound of Abraham," was that of one of the primæval cities of Babylonia, and its Akkadian name, *Kutû*, is derived from the original Sumerian form, , *Gudua*^{ki}. Its patron-god was, as indicated in 2 Kings xvii, 30, Nergal, the great deity of the underworld, who ruled there with

his spouse Ereš-ki-gal, the queen of that region before he became her consort. Nergal was conceived as a lion-headed god, probably to indicate his warlike character, and he was also the god of plague, disease, and death. As "lord of the grave" ( , *ša qabri*) he was *Ne-eri-gal*, "ruler of the great abode"—the place where all those who have departed this life await the day of bliss. As  , *U-Gur*, "the lord who turns," he was *Nergal ša ḫayāṭi*, "Nergal of inspecting," doubtless because he went about the earth and the underworld seeking those chosen for the fate to which they were destined —death or the reward of a well-spent life, as the Babylonians understood that term.

A great deal more could be written about Nergal, the Babylonian god of the underworld. His names are very numerous, and there is one of them which arouses our curiosity. His temple at Cuthah was called *Ê-mešlam*, "the house of the palm-growth," or the like, and he himself therefore bore the name of *Nešlam-ta-êa*, "he who came forth from the palm-growth." As the plague-god, smiting at random, and seemingly without cause, he might be likened to the god of the assassin, striking down by a chance shaft from a bow. But could he be described as coming forth from the wood of that bow? It seems doubtful, and we may, therefore, have to look for some romantic legend concerning him—one of the series of the legends of the gods, like those of Merodach or Tammus, or En-urta, "the lord from the beam," who was also a god of battle, differing, probably, from Nergal in that he was advocate of conflict in fair fight and military strategy.

The literature concerning Nergal is of some extent, though far from equalling that referring to Merodach. As a specimen I select an extract from what reads somewhat like a litany, though in all probability it should be regarded as a simple liturgical text:—

(Priest:) Leader, whose face is bright, the shining mouth of the powerful fire-god [illuminateth him].

(People:) Nergal, leader, whose face is bright, etc.

(Priest:) The lusty son beloved of the heart of Enlil, the great director [of the world].

(People:) Nergal, the lusty son, etc.

(Priest:) Prince of the great gods, [who spreadeth] fear and awe.

(People:) Nergal, prince, etc.

(Priest:) Giant of the Anunnaki, who [spreadeth] terrible awe [over all the lands].

(People:) Nergal is the giant, etc.

(Priest:) Lord, supreme head-raiser, beloved of Ê-kura, the record of whose name [overcometh evil].

(People:) Nergal is the supreme lord, etc.

(Priest:) High one of the great gods, who [holdeth] sceptre and judgment [over the land].

(People:) Nergal is the high one, etc.

(Priest:) Dragon sublime, who poureth out venom over them (*i.e.*, the hostile lands).

(People:) Nergal, dragon sublime, etc.

(Priest:) His bright (?) image terrifieth the powerful demons right and l[eft].

(People:) Nergal, his (bright) image, etc.

(Priest:) The long arm whose blow (*i.e.*, disease) is invisible, [smiteth] the evil one with his arm.

(People:) Nergal, the long arm, etc.

(Priest:) [Great Nergal] at the sound of whose foot the house of the worthy [is not disturbed].

(People:) Nergal, great god, etc.

The remainder of this striking address to the god of disease and strife is mutilated, but enough is left to show what it was like. In the above rendering I have attempted a completion of the defective lines wherever needed, but these restorations must be taken as merely provisional, and a more perfect copy is needed to give a really good rendering. The indications (Priest) and (People) are also mine.

Another important reference to the worship of a god of the Assyrian pantheon is that connected with the death of Sennacherib. The following is the rendering of the Revised Version of 2 Kings xix, 36, where, after recording the Assyrian retreat from Jerusalem, the murder of Sennacherib is described:—

> "And the king of Assyria departed, and went and returned, and dwelt at Nineveh. And it came to pass, as he was worshipping in the house of Nisroch his god, that Adrammelech and Sharezer (his sons) smote him with the sword: and they escaped into the land of Ararat. And Esar-haddon his son reigned in his stead."

Nisroch has always been a puzzling name for Assyriologists, as no deity so called appears in the numerous lists of divine names handed down to us by the Assyrians. The Greek manuscripts of the Septuagint version, however, give *Esdrach*, *Esthrach*, *Nassarach*, and *Asarach*, whilst the Vulgate has *Nesroch*, just as it has *Nemrod* for *Nimrod* in Genesis x, 10. It is, therefore, certain that the initial *M* is not original, and of the forms given I am of opinion that *Asarach* is the best. Now *Nimrod* is for *Nimrodach* or *Amarodach* (*Merodach*), and it looks as though the termination had been taken off the earlier name to place on the later one. This would transform *Asarach* into *Asar*, for *Aš(š)ur*, the well-known national god of Assyria. I must admit, however, that this form *Asarach* may not, after all, be due to the scribes of the Septuagint (and the Hebrew) versions—it may be owing to Assyrian pedantism, for as the name of the god Aššur was very often written with the characters  , *An-šar*—the group given, in the Babylonian lists and the Story of the Creation, as expressing the divine "host of heaven"—it is possible that it had once a fuller form, namely, *Anšarak*, which, when the Assyrians adopted this ideographic group, became one of its readings, and furnished the alternative pronunciation. In connection with this it is to be noted, that *Aššur* has become *Esar* in Esar-haddon, the Hebrew form of the name of Sennacherib's son, who succeeded him.

Nisroch being thus identified, I give here a translation of a dedication which Sennacherib made to his god in the temple E-šarra at Aššur. If this referred to a temple of Aššur at Nineveh one might imagine that the tragedy took place in that city. As it is, the exact locality is doubtful, for 2 Kings xxx, 37, does not give it. It is not impossible, however, that Sennacherib may have used, or intended to use, some of the phrases contained in this dedication, and we may take it as giving good examples of his literary style. In any case, the wording of this address is in some cases noteworthy :—

To Aššur, king of the host of the gods, creator of himself, father of the gods,

whose personality grew up within the Deep, king of the heavens and the earth.

Lord of the gods totally, he who assembleth the Igigi and the Anunnaki,

he who hath created the heaven of Anu and the world beneath, maker of all the settlements (of men).

He who dwelleth in the glorious firmament, Enlil of the gods, fixer of fates,

he who dwelleth in Ê-šarra, which is within Aššur, the great lord, his lord, [Sennach]erib,

king of Assyria, maker of the image of Aššur, the great god [f]or [the preservation of his life],

the lengthening of his days, the good of his heart, the establishment of his reign . . . . . .

a *liles* of massive copper, the work . . . . . .

which by the art of the god Igi-duggu . . . . . .

artistically he has had made for . . . . . .

and the repose of his heart . . . . . .

day 5th, day 7th . . . . . .

and the festival . . . . . .

Here the text comes to an end. The copy which I have had to use is that of Prof. Craig, and, excellent though it is, there are a few doubtful details of it which I should have liked to revise—perhaps I may be able to do this when brighter weather comes.

By way of comment it may be noted that the name of Aššur is written  ,* the group which, at that time, was seemingly pronounced *Aššar*, for *Anšar*. The god Aššur differs from Merodach in many ways, but mainly in the belief that, whilst Merodach was seemingly begotten, Aššur created himself, as well as the world and the universe as the Assyrians conceived it. In fact, the chief of the Assyrian pantheon was more like a supreme deity than even the Babylonian Merodach. Noteworthy, too, is his title "*Enlil* of the gods"—the word which, under the form *Ellil*, was borrowed by the Hebrews.† Ê-šarra, the temple in the city of Aššur where Sennacherib dedicated the image, means "the house of the host," probably because a number of other gods were worshipped there. It seems likely that Ê-šarra was the most important, or at least the most renowned, temple in the city of Aššur, and the tale of its gods would be the first in any list drawn up. Unfortunately, the first section of the text printed in *Western Asia Inscriptions*, III, pl. 66, is imperfect, but it contains a lengthy list of the gods worshipped at one of the city's great sanctuaries, and we gather from it that Aššur was

---

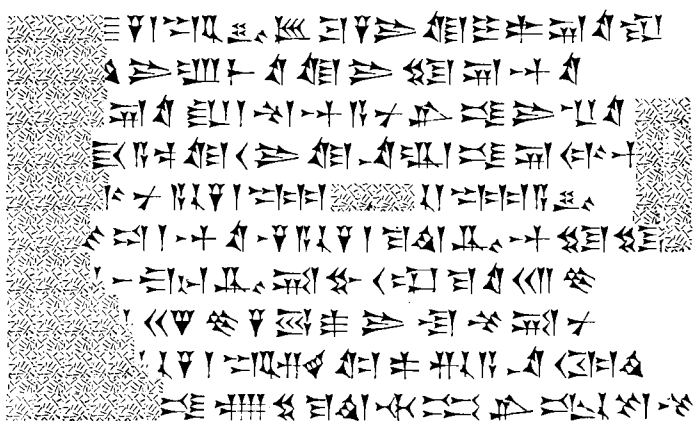
* *See* p. 25. † *See* p. 13.

worshipped in this temple under many forms. In line 14 his name occurs between those of *Dagan* (Dagon) and *Agû*; and in line 18 the sun-god Šamaš seems to be described as "Aššur, he who captures" (*kašidu*). As, however, I have already overrun my space, I cannot examine this list at greater length, so at present will only say that in other sections the names *Laban* and *Išmelâ* (Ishmael), one of the judges of the temple of Aššur, occur with the divine prefix; also we find the gods *Šalmanu* (Shalman), *Malik* (identified with Moloch), *Amurrū* (the Amorite), etc., and many combined forms. I should have liked to deal with some of these names, though they are not always really subject to my title—and to these I must add Hadad and Abil-Addu, or Ablada (Ben-Hadad the god, not the Syrian king)—but these must be for another time.

Though my paper is far from perfect, it may have had one useful effect, as it shows the action of the ancient religions of the ancient Near East upon each other, and how, though the Hebrews may have been tempted to heathenism, there were among the heathen of that tract and elsewhere men who were tempted to, and even embraced, monotheism. We may, indeed, say that within heathenism itself in those days there was a tendency to higher things.

Appendix.

The following inscription, which has some bearing on the subject of ceremonies, with which the above monograph deals, was given to the author by Mr. F. S. Rudler, I.S.O., Curator of the Museum of Practical Geology, many years ago. This record, which, from internal evidence, comes from Abu-Habbah (Sippar), is unfortunately mutilated, but the general drift can be gathered with considerable probability. Although there was ample room for further details (the reverse being uninscribed), there is no date, but it may be as early as the time of Nabopolassar (626 B.C. or later). It has a parallel in one of the late Assyrian letters, which describes a ceremony (or ceremonies) in which torches were carried, and in which the king (Assurbanipal) was to take part.



Transcription.

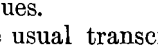
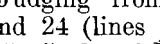
1. [a-we-lu-tu^{m} ?] ša Bêl-âhê-ikî-ša D.P. ki-i-pi Ê-babba-ra
2. [Šamaš]-uballiṭ (?) D.P. šangu Sip-par^{ki} D.P. TU-MAL $^{d.}$Šamaš
3. [a-šib ?] Ê-babba-ra Warad-$^{d.}$A-nu-ni-tu^{m} D.P. si-pir
4. [ša B]êliṭ A-kad^{ki} u D.P. ki-na-ul-tu^{m} Ê-ul-maš
5. . . . . -nu âbli-šu-ša [Nabû-uṣur]-šu Nabû-âbla-uṣur
6. [abti-šu sa^{m}] šum (?)-ukîn Šamaš-êṭir âbli-šu ša Le'u-$^{d.}$Tu-tu
7. . . . . ina paḫari iq-ṭa-bu-u um-ma Ûmu êšraia-šina
8. [ûma êšraia-šalša u ûmu] êšraia-irbu ša warah Šabaṭi D.P. la-mu-ta-nu
9. [ša . . . . . âbli]-šu ša Bêl-ušallim ṭi-pa-ri a-na muḫ-ḫi
10. . . . . -tu^{m} u-ša-et-ti-qu ni-il-te-mu.

Free Rendering.

[The staff] of Bêl-âḫê-ikîša, Governor of Ê-babbara; . . , scribe of Sippar, priest of the Sun-god [who dwelleth] in Ê-babbara; Warad-Anunitu^{m}, secretary of the [house of the La]dy of Akkad, and the staff of Ê-ulmaš, said to . . . -nu, son of [Nabû-uṣur]-šu; Nabû-âbla-uṣur, son of Šum(?)-ukîn; Šamaš-êṭir(?), son of Lê'u-Tutu, [and . . . .], in the assembly, thus: "(On) the 22nd, [23rd, and] 24th days of Sebat, the eunuchs [of . . . .], son of Bêl-ušallim, will carry round the torches upon the . . . . We have been round."

The only uncommon word is *kinaltu*^{m}, possibly from *kanāšu*, "to bow down," implying obeisance and service. As *rabû-ša-rêši*, "great one of the chiefs," or "head-men," was apparently a

military title—he seems to have been a eunuch—*rabsaris*—I am inclined to regard *lamutanu* ("not men" or "not husbands") as including "eunuchs." The hairless priests of the cylinder-seals were seemingly shaven as a mark of their office, but this was probably not a universal custom either in Assyria or Babylonia. Beardless eunuchs, if admitted to the priestly offices, possibly occupied a different position from that of their uncastrated colleagues.

Ê-babbara is the usual transcription of  , "house of light," the temple of the sun at Sippara, and E-ulmaš was a kindred shrine. Judging from *Cuneiform Texts from Bab. Tablets*, xxiv, 11 and 24 (lines 64 f.), the god Ulmaš was one of the  , *Gubba*, of Ê-kura, probably the temple of that name at Nippur or Niffer, the city identified with the Coluch of Gen. x, 10, by the Jews of Rabbinical times.

Whether there is an analogy in the ceremony here referred to with the "smoking furnace" and the "lamp of fire" in Gen. xv, 17, is uncertain.

Discussion.

The Chairman, in moving a vote of thanks to Professor Pinches, suggested that, under the impressions conveyed by the lecture, it should now be profitable for instructed Christian people to go through the Old Testament afresh, and note the many places in which the jealousy of the God of Israel is expressed in regard to the worship of idols. It will be seen that, in the midst of the chosen people such worship was denounced as an abomination, while among the surrounding nations it was a thing of vanity—from Merodach downward the divinities were "gods that were no gods," "gods of earth," the creation of human perversity and folly.

The Rev. J. J. B. Coles thanked the learned lecturer for his scholarly and interesting paper.

As to the origins of idolatry, there were four principal sources :—

1. The worship of the sun, moon and stars, or Sabeanism ;

2. The reverence paid to the perverted symbols of the Cherubim, the winged man-headed bulls and lions of Assyria ;

3. Ancestor worship—Nimrod and others ;

4. The deification of human passions, as in the worship of Greece and Rome.

A good history of caricature had not yet been written—the images of the gods of Egypt were often caricatures of Divine attributes. Men had changed the glory of the incorruptible God into images of corruptible man, of four-footed beasts and creeping things (scarabs, etc.); and Israel, too, alas! changed their glory into the similitude of a calf.

The gods of Egypt had caricatured and debased the teaching of the Patriarchs. Professor J. G. Fraser's books ignored this sad perversion of Divine Revelation. Myths and legends were often corruptions of primitive truth—and not the original source of true religious ideas.

Mr. THEODORE ROBERTS thanked Professor Pinches for informing us of many things which we should not otherwise have known, and likened him to the engineer who made the road across the Alps whereby Napoleon took his hungry and ragged soldiers down to the rich plains of Italy. Mr. Roberts thought we could learn most from the paper by contrast, and instanced the absurdity of the god who was said to have created himself in comparison with our God who covered Himself with light as with a garment (Ps. civ, 2).

He pointed out that Joshua, speaking in the name of Jehovah, three times over told the Israelites that their fathers, even Terah, the father of Abraham, had served "other gods" (that is, idols) beyond the river (Euphrates) (Joshua xxiv, 2, 14, 15); so that the knowledge of the true God which Abraham brought from Ur to Canaan appeared to have been the result of a revelation made to him. This was the first mention of idols in the Bible, save the prohibitions of the Law; and the last, according to the historical order of the books, was found in the last verse of the first Epistle of John—"Little children, keep yourselves from idols"—where our Lord Jesus Christ was presented as the alternative.

It was in contrast to idols that God was thrice described in the New Testament as the true (or real) God, namely, the Father, in the earliest Christian writing (1 Thess. i, 9) and our Lord's high-priestly prayer (John xvii, 3), and the Son in 1 John v, 20. The Son is there described as the real or "very" God, because all that can be known of God is set forth in Him, He being God. He is there also described as the Eternal Life—that is, the ideal Man, namely, all that man can be for God. It is only by undivided

loyalty to His Person that we can be kept from idolatry in its present subtle, and, therefore, more dangerous, forms.

Lieut.-Colonel G. MACKINLAY writes: "This is a very valuable paper. Bearing in mind that Abraham came from Ur of the Chaldees, it is reasonable to expect that some relationship exists between the religion of the Jews and that of the Babylonians. It is of interest to know that modern Jews (p. 13) still use a word which is derived from the Old Babylonian language, and also that the Babylonians, and even more the Assyrians, recognized a supreme God who occupied a leading pre-eminence among all their gods or idols (pp. 11, 17, 18, 26).

"The Japanese have a tradition that Jews came to this country many centuries ago, and the Afghans to the North of India possess many resemblances in features and in habits to the Hebrews. On the first page of this paper our author speaks of nations of the *Near* East; one is led to ask him if any resemblances to the worship of Jehovah can be found in any other of the religions of Asia.

"Perhaps the Professor will tell us in the future paper at which he hints on p. 27, which we much hope he will give us ere long."

AUTHOR'S REPLY.

I am glad to have the clear statement of the Rev. J. J. B. Coles with regard to the four forms of idolatry. There is no doubt that the Babylonians and Assyrians were great sinners (they ought to be pardoned, for they knew no better) in worshipping the heavenly bodies. The identification of Merodach with Jupiter, Ištar with Venus, etc., shows how they desired to honour their gods, and it is very probable that these identifications go back to a period earlier than the foundation of the Sabean states. Whether ancestor-worship, and the deification of kings and heroes, goes back to an earlier date than the worship of the heavenly bodies is uncertain, but the glories of the Eastern skies, seen by the Babylonians from the earliest ages, must have suggested to the men of those days that the changeless starry host, if not the gods themselves, were at least their symbols.

Yes, from our point of view, the Egyptian mystic and often abhorrent images of the gods whom they worshipped were certainly caricatures. In this respect the Babylonians were very moderate,

and it is mainly on the boundary-stones that animal-symbols of the gods whom they worshipped are seen. How far these were adopted by the Israelites we do not know, but they were probably well acquainted with them. The name of Merodach means "the steer of day," but I do not remember having ever seen that god represented as a steer. The cuneiform character for Šamaš originally represented the sun's disc, and this we find on the cylinder-seals, often accompanied by the crescent of the moon. In connection with this it is to be noted that, as Professor Garstang has pointed out, the Ottoman crescent and star, which serve as their national symbols, and are found on their flag, are a modification of the Babylonian sun's disc within the moon's crescent, as found on these same Babylonian cylinder-seals.

Egyptian overcharged symbolism is repellent to us, but there is much to be said about symbolism in general, and we ought not to despise it—even the symbolism of the heathen Assyro-Babylonians. But that is a subject for future treatment.

It is needless to say that I thank Mr. Theodore Roberts for his kindly and appreciative remarks. I feel that I am not worthy to be compared with the great imperial general whose masterly leadership he instances, but this I can say, that there are pastures richer far than those to which I have led you—or, rather, than those of which I have given you a glimpse. All members of this Institute will, I am sure, be gratified with Mr. Roberts's comments and quotations—quotations which recall to our minds so many interesting and acceptable passages of the Testaments, both the Old and the New. One of the most attractive subjects with which I should have liked to deal is that of the signs of the Zodiac and the Sumerian names of the months, but this would have entailed too long a study. Many a legend, however, is probably connected with their origin. Of special interest, also, is the legend (may I use the word ?) of the dragon Rahab.

I am much obliged to our Chairman, Dr. Thirtle, for his kind remarks, as well as for the appreciative words of those who have joined in the discussion. I also thank Lieut.-Colonel G. Mackinlay for his interesting letter. If I can make the tablet of divine names referred to on p. 27 really interesting—as interesting as it is important—that, too, might be dealt with along with other lists of heathen divinities.

670TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, JANUARY 5TH, 1925, AT 4.30 P.M.

LIEUT.-COLONEL F. A. MOLONY, O.B.E., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed, and the Honorary Secretary announced the election of the following:—As a Life Member, Major Lewis Merson Davies, R.A., F.G.S.; as a Member, Gerald W. J. Cole, Esq.; and as an Associate, Mrs. H. Norton Johnson.

The CHAIRMAN then introduced Brigadier-General Sir Wyndham Deedes, C.M.G., D.S.O., to give his lecture on "Great Britain and the Palestine Mandate."

GREAT BRITAIN AND THE PALESTINE MANDATE.

By BRIGADIER-GENERAL SIR WYNDHAM DEEDES, C.M.G., D.S.O.

IT has ever been to me a matter of surprise and significance that the occupation in 1917 and the administration since that time of Palestine and Jerusalem, better known to hundreds of millions of people throughout the world as the Holy Land and the Holy City, evoked so little interest amongst the public in this country and in other parts of the world. It would have been reasonable to expect that the occupation of a country, about the history of which we read week in week out, year in year out, and out of which such great events have issued, would have attracted more than ordinary attention. It is true that, at the time when what I may call the spirit of exaltation evoked by the war reigned in this and in other countries, some attention was aroused by allied victories in Palestine; but this spirit of exaltation was very soon dissipated by the fog of materialism which obscured men's vision before the war, and which seems to have rolled up again since the peace.

It is not as though the manner of the occupation was unworthy of the occasion. It will be remembered that the commanders of the two opposing forces mutually agreed that no conflict should take place within the precincts of the Holy City, and that no shells should fall therein. This agreement was strictly adhered to by both parties. The Commander of the Allied Forces refrained from emulating the example of a certain European

Potentate (who a few years before in making his entry into the Holy City had caused a portion of the ancient wall to be demolished for his greater facility) and elected rather to follow in the footsteps of a still greater One who, 2,000 years before, had made a triumphal entry in more humble circumstances.

But it must be admitted that there were certain reasons for the apathy and indifference displayed by the public of this country. Three of these reasons may be cited :—

First, Arab apprehensions ; second, Jewish " affirmations " or, as they might in some cases more truly be described, " exaggerations " ; third, the stony silence observed by H.M. Government, who were responsible for the Balfour Declaration, but who took no steps to explain its meaning and implications.

With regard to Arab apprehensions which caused people in this country to think that an injustice was being done to that community, it is well, in the first place, to remember that the anticipations raised in the minds of all ex-Ottoman subjects of the blessings to follow from a British occupation were exceedingly high. It would probably be true to say that if any subject of the Ottoman Empire—be he Turk, Armenian or Greek—had been offered his choice of, on the one hand, the prospective enjoyment of the Paradise promised him by his religious leaders in the next life, or, on the other, the immediate enjoyment of a British administration in this, he would without hesitation have chosen the latter.

When, however, it was found that a British administration, though a great improvement on the Turkish, did not immediately introduce the millennium, elation gave way to disappointment and complainings.

Further, it is well to remember that there was great confusion in the minds of the Arabs regarding the political situation. They were aware that conversations had taken place between Sir Henry McMahon on the one hand, and King Hussein on the other. They maintained that H.M. Government had promised to establish an Arab kingdom, and that Palestine was to form one part of it. In point of fact, as is known, H.M. Government merely promised to support an Arab kingdom if King Hussein on his side could bring together the elements which were necessary for its establishment ; and subsequent events have shown us how difficult this has been to accomplish. As to Palestine, it was specifically excluded from the boundaries of the prospective Arab kingdom.

Finally, while considering the Arab case, it is well to remember that the contribution made by Palestinians during the war was an extremely small one. It would be fairly true to say that their rôle was one of spectators rather than one of participators.

As to the Jewish affirmations—or, as I have said, they might in some cases be called exaggerations—can anyone blame the Jews if they displayed some enthusiasm at the prospect of realizing the hopes and ambitions entertained during 2,000 years ?

As to the silence of H.M. Government, we must remember what is widely believed, and what I should be the last to deny, that H.M. Government were, in point of fact, as ignorant as other people as to the meaning of the Declaration they had made.

To come now to the subject of my lecture, namely, Great Britain and the Palestine Mandate, I do not propose to read to you the Articles of that document, which would be boring to you and tedious to me ; I propose rather to spend, with your permission, a quiet half-hour in what not long ago I heard Lord Balfour describe as " the dignified seclusion of the preamble." In the dignified seclusion of the preamble will be found the spirit of the Mandate, and you will agree with me that the spirit of a document is of greater importance than the letter.

The first part of the preamble reads as follows :—

(A) " Whereas the Principal and Allied Powers have agreed that the Mandatory shall be responsible for putting into effect the Declaration originally made on November 2, 1917, by the Government of His Britannic Majesty and adopted by the said Powers in favour of the establishment in Palestine of a National Home for the Jewish People."

As you will see, this sentence which I have just read out immediately and acutely raises the question of the meaning of those extremely elusive words " nationality," " nationalism," " national home," regarding which, were we to inaugurate a discussion, we should be forced to remain here till the clock struck nine.

I do not propose to give you my own interpretation of those terms, but rather to read you extracts from the writings of some more competent than I to express an opinion about them.

The first extract that I will give you is from Professor Zimmern: " It is clear that there is a fundamental difference between nationality and statehood. Nationality, like religion, is subjective —statehood is objective. Nationality is psychological—state-

hood is political. Nationality is a condition of mind—statehood is a condition of law. Nationality is a spiritual possession—statehood is an enforceable obligation."

I would call your attention to the words "subjective," "psychological," "condition of mind," "spiritual possession," which, as being descriptive of nationality, he contrasts with those other words descriptive of statehood; and it is with the former we are concerned, not the latter.

He goes on to say: "How shall we define nationality? A body of people united by a corporate sentiment of peculiar intensity, intimacy and dignity related to a definite home country. Every nation has a home, though some nations, as the Jews, the Irish and the Poles (not now, of course), live for the greater part in exile. If the Jews ceased to feel a peculiar affection for Palestine, or an individual Irishman ceases to feel affection for Ireland, he ceases to be a Jew or an Irishman."

And he concludes by saying: "It is primarily and essentially a spiritual question," and he believes in nationality "because he believes that the alternative thereto in the modern world is not governmental oppression, but spiritual atrophy."

He is here reminding us that that which we should wish to bring about in the world is not "cosmopolitanism," which is "uniformity," but "internationalism," which is "unity from diversity."

Finally, there is one more quotation which is so striking that I must give it you: "It is for this problem of the man without roots, the 'déraciné,' that nationality provides a solution. Nationality is the one social force capable of maintaining—for these people—their links with the past, and keeping alive in them that spark of the higher life and the irreplaceable sentiment of self-respect without which all professions of fine ideals are but as 'sounding brass and a tinkling cymbal.'"

Now you can judge for yourselves how far all that is here said about nationality applies to the case of the Jews. And on this subject let my last word be this—that, if you feel any doubt as to the existence of nationalism as a force operative amongst large numbers of the Jewish people, go and ask any of the Jewish pioneers in Palestine (or, as they are called, the "Haluzim") what it was that urged them to go and make their homes in that country. There were in many cases no doubt two forces—there was the desire to escape from the adverse conditions in which they

were living, where self-expression as individuals, or as a national community, was impossible. This was the force of "propulsion," but in every case, I feel sure, there was a second and stronger force, namely, that of "attraction"—the call of Palestine to Jews to return to their "national" home.

So much for the theory. What is its practical application in present circumstances in Palestine?

In the first place, it is clear that a Jewish State, as such, in the ordinary acceptation of the term, is to-day impracticable. You have not a Jewish majority in the country—you cannot have a Jewish Government.

In the second place, even had it been practicable I am doubtful whether it would have been desirable. The Jews in Palestine are building, not only for those who will reside there, but for the millions resident in other countries. If time, money and energy were solely devoted to a Jewish "State," objective, political, institutional, and so on, for those in Palestine, how much would be left for the development of a Jewish national ideal for those outside it?

Furthermore, might it not raise "political" difficulties for those Jews not members of the State? The national home as at present understood need raise no such difficulty.

But in the third place, in my opinion, a Jewish national home, in the sense assigned to the word "national" in the above quotations, can well be established within the four corners of Palestine, and give to all Jews that which they expect to derive from it.

We do not want an "almshouse," that is, a place of refuge for destitute Jews. We do not want a "museum," an exhibition in which shall be shown the various cultural, scientific, social and other activities in which Jews engage, and to which they make so large a contribution throughout the world. But what we do want is a "home" in the English sense of the term. Some place to which a man instinctively feels he has a contribution to make, and from which he can derive an inspiration no matter where he be situated.

So much for the theory, so much for the application, and now for the practical results achieved. I have insufficient time to do justice to this side of the question. I can but mention one or two of the results:—

In the first place, what of the people who are achieving these results—the Jewish pioneers? Of them it may be said that they

have shown that they have been able to rise to the full height of the occasion. They combine in a unique manner the practical sense that is necessary for the execution of the "means," together with the idealism which is necessary for the attainment of the "end." They have proved themselves good farmers, reclaiming waste and marshy lands; they are introducing scientific farming; they are reviving the moribund small industries of Palestine.

They are establishing a new form of society, which has no counterpart elsewhere in the world; they are showing that there is such a thing as the "dignity of labour," and that hard, physical work in adverse conditions is not prejudicial to, not incompatible with, the development of the intellect.

On the purely educational side they have achieved a very high standard, the crowning of which will be the Hebrew University on Mount Scopus, the formal opening of which takes place this year.

Over 90 per cent. of the population speak Hebrew; they have revived their national language. Once again the Jews are able to sing their own songs in their own land and in their own language; not by the waters of Babylon, but by the waters of Jordan.

These Jewish pioneers are setting up a norm, a standard to be a guide to the whole of their nation. In future, metaphorically speaking, every Jew will set his watch to the time kept in Palestine, and light his torch at the hearth of the home fires.

This is what they are doing, but in so doing they are acting without prejudice to the interests of the other members of the community, which brings me to the second part of the preamble, which I will now read to you:—

"It being clearly understood that nothing shall be done which might prejudice the civil and religious rights of existing non-Jewish communities in Palestine."

The Mandate contains certain articles specifically dealing with this question. There is an article, for example, that deals with the Christian holy places; another with the Moslem holy places, with the question of education and language, and with the different days of rest and fast days observed by each of the three communities.

But I would rather call your attention to the spirit of the administration rather than to the letter of the Mandate. H.M. Government and the High Commissioner for Palestine have frequently stated that they regard this part of the Mandate

as being of as great importance as that part with which I have already dealt. The prosperity of the Arabs is no less important than that of the Jews.

As an earnest of the Government's good intentions in this matter, the following few examples may be cited :—

Within a very short time of the establishment of the civil administration in the country a Supreme Moslem council was set up, charged with the direction of Moslem religious affairs, and exercising control over the expenditure of the revenues of the "Awkaf." In other words, the Moslem community has self-government in religious affairs—a benefit conferred by a Christian administration, never enjoyed under a Moslem one.

Then as regards education. Recognizing that if the Moslems were to compete on fair terms with other members of the community it was essential to place greater educational facilities at the disposal of Moslem children, the whole of the revenue allotted in the budget for education was devoted to the Moslem community, with the exception of a small sum of a few thousand pounds given as grants-in-aid to the Christian and Jewish communities. As a result of this policy the administration began to open Moslem village schools at the rate of one a week.

Then take the all-important question of land. The administration laid it down as a fundamental principle that in every case of land transfer from Moslem to Jews, whether by private purchase or by concession, such transfer should only take place if alternative and adequate provision had been made for the maintenance of the Moslem population displaced.

There is the well-known case of the Beisan lands, some of the richest in the country, which, if treated scientifically, as they would have been by Jewish farmers, would have yielded larger returns than is possible under its present owners. The Arab claim to them was most obscure, but, in spite of this fact, the Government supported what was no more than a moral claim, and made over the lands to the Arabs.

When considering the general position of Arabs and Jews in the country, it is well to remember that the former enjoy many advantages not possessed by the latter ; they are natives of the country, acclimatized, speaking the language of the majority of the population, accustomed to local conditions, and have (or should have) the reins of commerce and industry in their own

hands; whereas the Jews come to the country strangers, unacquainted with the local conditions or the prevailing language, unacclimatized, obliged to build up their lives from the very beginning.

Fortunately, it is now possible to report that the political situation is much better, and the agitation against the policy of the national home has greatly diminished.

Time does not permit of an examination of the reasons for this change of feeling. Briefly, it may be said that all along it has been with the Arabs much more a case of "apprehensions" than of "realities." They feared the worst, but the worst has not come about.

And now it only remains to deal with the third part of the preamble :—

(It being clearly understood that nothing shall be done) "which might prejudice the rights and political status enjoyed by Jews in any other country."

This aspect of the question has always been a stumbling block to some Jews as well as to other people. It is the question of the so-called "dual allegiance." The fear is expressed lest the loyalty and allegiance due to the different States of which Jews are citizens be impaired by reason of the loyalty and allegiance which will be paid to the national home in Palestine. All turns on the meaning to be attached to the term "national home in Palestine." If this term be interpreted in the sense expressed at the commencement of this lecture, it will be seen that the loyalty due to the national home in Palestine does not in any way detract from the loyalty due elsewhere. The two allegiances are not competitive, for they are exercised in different spheres.

Finally, with regard to the rôle of H.M. Government. Briefly, this would appear to be to devise such political, administrative and economic machinery as shall induce each community to make a maximum contribution to the welfare of the whole country, while assuring to each the right to maintain, and the opportunity to enjoy, its own distinctive religious, cultural and social practices and traditions—thus giving to the world an example of variety in unity and harmony built up from diversity.

The task is no ordinary one, but it has been allotted, I believe, to no ordinary people.

Discussion.

The Chairman proposed a vote of thanks to the Lecturer, which was carried by acclamation.

Dr. M. Gaster said: I am sure I am expressing the feeling of all present when I say that we are deeply grateful to Sir Wyndham Deedes for his lucid and impartial statement of the conditions now prevailing in Palestine. He has endeavoured to keep the balance even, nay, he has been very sympathetic to what he believes to be Jewish aspirations. But whilst appreciating this sympathy, I am forced to state that the point of view which I hold differs fundamentally from that expounded by the speaker. He has tried to define the new "nationalism" and "national home," two most elusive terms, and the real cause of all the trouble that has since arisen. It is a new idol that has been erected and, I venture to say, is not what we aimed at when we worked for close upon a quarter of a century for the realization of Zionism. With all humility, I may say that I have taken a share, and perhaps a large share, in the development of this movement, into which I introduced the cultural side and for which I have borne the brunt for so many years in defending the principles for which Zionism stood. One thing is certain. It neither meant a slow infiltration of a handful of people specially selected, who were expected to pass through the eye of the needle before admittance and then just tolerated, nor was our aim to realize material prosperity for the few thus favoured. Nor was it a question of merely rearing a spiritual home, a conception which cannot easily be understood or defined. If this meant the highest spiritual development of which a nation is capable, then to all intents and purposes Spain was that ideal national home. For close upon one thousand years the Jews lived and flourished in that country, and there lived and worked the greatest men of which Jewry can boast. The greatest poets, the greatest scholars, the greatest men of science, nay, even the greatest mystics, were all of Spanish origin, and yet no Jew has ever dreamed of calling Spain his national home. Worse still if this new nationalism is to be divorced from the national faith! One does not hear much of the Voice of God or of that fervent adherence to the ancient tradition which alone would mark the true return of the Jew to the Holy

Land. For let there be no misunderstanding : our claim to Palestine rests solely and exclusively on the Word of God, on the utterances of His Prophets and on His promise given to our forefathers. Without that we would only be a horde or a people scattered throughout the world, wandering aimlessly from place to place, and seeking justification for this dispersion in the wisdom and love of God. Aye, some of the old circumstances connected with the return of the Jews from the Babylonian Exile seem to have been repeated in our days. The casual inhabitants of old Judea did not hesitate to denounce the activity of the Jews who had returned as fraught with danger to the sovereign power. They even sent a petition to the king and thus frustrated for a time the rebuilding of the wall and of the Temple. In the same manner some of those who are now inhabiting Palestine sent a petition to the League of Nations also denouncing the activity of the Jews. They did not scruple to pervert the facts which action was stigmatized as untrue by the highest authority of the land. But then—and therein lies the profound difference between the times of old and the times of to-day—the Prophets stood up, and Haggai, Zechariah and Malachi spoke in the Name of the Lord words of encouragement and words of hope. Where are the Prophets to-day ? Who turns his eyes towards the Temple ? Who listens to the inspiration of Holy Writ ? It is not by any material prosperity that the grave Jewish problem which is haunting the conscience of the civilized world can be solved. So long as a Gentile power holds absolute sway over the land, so long can also the old prophecies not come true. The genius of a nation cannot thrive under the shadow of foreign rule ; it must be able to soar aloft unhampered and untrammelled. We are no doubt for the time being most happy to be under the protection of the great Bible-loving English nation, but the future must lie in the hearty co-operation of all the members of a commonwealth, the character of which is not determined by numbers but by common interests and common aspirations. The ideal which Zionism had set itself to realize was to enable the Jew to bring the civilization of the West, and the Arab the poetic imagination of the East, blend them together, and so work out the problem of salvation for themselves and the world at large from the highest human plane.

The Rev. PAUL P. LEVERTOFF said: It is continually being argued by the Arabs in Palestine that, if the Jews come there, there will not be room for both peoples to live in the land, and so they, the Arabs, will be ousted from their country which they have occupied so long by a people who claim it because they used to own it thousands of years ago.

First of all, it must be taken into consideration that it was the *Jews*, and not the Arabs, who "made" Palestine. *Their* unique history has turned the eyes of all mankind to that one small country, and so the Jewish claim to the land is a higher one than that of the Arabs. Secondly, there are certain scientific facts about Palestine which make the whole Arab argument fall to the ground. These facts were discovered by an agronomist, who was sent specially by the German Government to prosecute a scientific research in Palestine before the war. He told me personally all these facts, which were as follows:—The soil which underlies the barren rockiness (which makes those who come to Palestine for the first time wonder how it could ever have been described as "a land overflowing with milk and honey") is really *most* fruitful, one of the richest soils imaginable. Drought is, however, Palestine's great enemy, and no fruitful soil can use its virtues without life-giving water. But it was discovered that, if in this lower soil a tree were planted, the evening breezes from the sea brought moisture in such quantities that it was all-sufficient to supply, not only the tree on which it deposited itself, but watered the ground beneath to an extent which caused any plants there situated to grow and flourish. This expert came to the certain conclusion that, if trees were planted extensively in this fashion, a sufficient dew deposit would accrue which would then turn the land again into "a land of milk and honey." The Arabs knew this, and when trees were planted they stole them or, if too firmly rooted for that, cut them down under cover of darkness. This they had done systematically for centuries, since a cultivated land would not be in accordance with their own nomadic habits, and also, they were not eager to see the land become useful and fruitful, because then the Turkish Government would raise taxes on the land the which they were not disposed to pay! According to that expert's reckoning, which was published in a German Government report, the land, if treated as he suggested would hold comfortably a population of fifteen millions.

As Brigadier-General Sir Wyndham Deedes is intimately connected with the Zionist movement, I would like to ask him if he could tell what was the attitude that would be taken towards those Jews who were still more truly Jews because they believed in the Messiahship of Jesus ? To some of us that was the most acute problem in regard to the Mandate.

Mr. SIDNEY COLLETT said : We are, I am sure, all very grateful to the lecturer for the illuminating and lucid way in which he has dealt with the subject of Great Britain and the Palestine Mandate, whereby it is hoped that the Jew, the Mohammedan and the Greek will agree to share the Holy City.

But we have to remember that "the Jews" are *God's people*, and the land is *God's land*, and, therefore, the best plans that the British or any other Government can make with the best intentions for the settlement of the Jewish problem, if those plans are not based on the declarations of *God's Word* they must inevitably fail of their object.

Under the British Mandate the City of Jerusalem at the present time is divided into three parts : The *North-Eastern* part, containing Mount Moriah, on which the Temple once stood, has been given to the *Mohammedans* ; the *South-Eastern* part has been given to the *Jews* ; while the *Western* part has been allocated to the *so-called Christians*—the Greeks.

Now, seeing that Mount Moriah is to-day surmounted by a heathen mosque—the Mosque of Omar ; and that that mountain, of hallowed memories and the surrounding district are now in the possession of the Mohammedans ; and having regard to the many Scripture declarations concerning that land—that the Jew is to "*have it in possession*" and "*to dwell there*" (Ps. lxix, 35), "every bit of it" (Deut. xi, 24), I ask : Is it conceivable that the Jews will now really settle down contented while the most sacred spot to them in that land, and, indeed, in all the world, is thus desecrated ?

It would be interesting if the lecturer would give us some idea as to how the Government view this aspect of the matter.

Mr. THEODORE ROBERTS contrasted the death-beds of two Jewish Prime Ministers. It is recorded of the one, Joseph, that he preferred, to the Pyramid in which he could have been buried in Egypt, that his bones should be carried to the promised land according to the

faith which doubtless his parents had taught him in his childhood, for he left home at seventeen. As regards the other, Benjamin Disraeli, Earl of Beaconsfield, his physician, Dr. Joseph Kidd, relates that, when departing, he spoke rather of the redemptive work of Christ, which gave him a heavenly place.

It was this contrast between the hope of the Christian Jew and that of the unpersuaded Israelite, who had each taken part in the present discussion, which would, he believed, prevent any difficulty arising in their respective confraternities living side by side in Palestine. The writer of the Epistle to the Hebrews sought to detach the affections of his readers from the country of their race by pointing out that we Christians are seeking after a country of our own and desiring a better country, that is, a heavenly (Heb. xi, 14, 16, R.V.).

The CHAIRMAN said: We recognize the unselfishness of the conduct of those Jews who have subscribed to enable other Jews to settle in Palestine, and the good work of the settlers. I am told that they have succeeded in rendering wholesome districts which were found to be too unhealthy for any Arab to work in. Also that they are raising fine crops on land which was reckoned hopelessly barren, and that they are introducing a good educational system and so providing helpers for Government offices.

By these examples of success the Arabs ought to benefit greatly; but we all need to remember that the Zionists did not accomplish these things for the sake of the Arabs, and that few people like others to show them, unasked, how to do things.

The Arab dislike of the Zionist may have no logical basis, but it has a psychological basis, and both Zionist and Britisher will do well to remember the fact: the Zionist, that he may learn to be very conciliatory in all his dealings with the Arabs; the Britisher, that he may be ready to stop war between the two nations—an ugly possibility: but who would venture to call it unthinkable?

Great Britain is father of many pairs of children whose prejudices, and sometimes also whose interests, clash. The Mahometan and Hindu in India, the Arab and Jew in Palestine, the African and East Indian in Kenya. These are not fighting just now, because we won't let them: but how if we disarm? Eli was blamed for not

restraining his sons: is it really a Christian duty to render ourselves unable to keep the peace among our sons? Britain's justice is admired in the East: is it not well that there should be physical force at the back of our judges in the future as in the past?

We wish prosperity to both Jew and Arab. It seems clear that our duty as a Power recognizing the Government of Almighty God, is rather to see that justice is done all round, than to try to force the fulfilment of prophecy.

671st ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, JANUARY 19TH, 1925, AT 4.30 P.M.

E. WALTER MAUNDER, ESQ., F.R.A.S., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed, and the Honorary Secretary announced the election of the Rev. Henry W. Bromley, D.D., as a Member, and of Mrs. Ida Case as an Associate.

In introducing the Lecturer, the CHAIRMAN said :—

Ladies and Gentlemen,—There have been many great and terrible earthquakes throughout the entire length of human history, and unhappily there have often been observers of them. But it is only within the last few years—practically within the present century—that earthquakes have been studied scientifically. There are still but very few mathematicians and physicists who have given systematic attention to earthquake phenomena, but prominent among these is Dr. Dorothy Wrinch, of University College, London, and Fellow of Girton College, Cambridge, whom I have much pleasure in introducing to you. I will now ask Dr. Wrinch to read her paper on "Seismic Phenomena."

SEISMIC PHENOMENA.

By DR. DOROTHY M. WRINCH.

THE modern science of Seismology has developed very rapidly since its beginnings about the year 1880. The sharp earthquake of February 22nd, 1880, which did a considerable amount of damage in Yokohama and Tokyo, had one important scientific consequence. It led to the formation of the Seismological Society of Japan, which had, for its object, the study of earthquake phenomena. The indefatigable labours of Milne, Knott, Ewing and other European scientists resident in Japan, and the cordial support of a number of prominent Japanese, were indeed responsible during the next few years for the foundation of the science of Seismology. It became in this short span a branch of natural philosophy, and the foundations were well and truly laid. The fertility of the applications of the science and the rapid progress in knowledge which the last few years has seen bears eloquent testimony to this fact.

The development of Seismology as a branch of science is due, in the first place, to an important experimental discovery made by Milne. It was found that by means of a delicate pendulum an earthquake could be registered at places at a great distance

away from the scene of its occurrence. This discovery at once opened the way to the collection of seismic data, for, evidently, records of an earthquake from observers at different places could be used comparatively and might reasonably be expected to give important information with respect to the incidence of earthquakes in various parts of the earth.

It has long been realized that certain regions of the earth's surface are specially subject to earthquakes, and it is owing to this grim privilege that Japan in the East and Italy in the West led the way originally in the production of seismological observations. Milne catalogued 8,331 earthquakes which happened in Japan between the years 1885 and 1892. The frequency of earthquakes in Japan, however, varies very much from one district to another, and these 8,331 quakes apparently belong to fifteen distinct districts, outside which there are practically no earthquakes at all. Even, in fact, in Tokyo the number of earthquakes varies very much with locality. Yearly catalogues of earthquakes were prepared by Mallet, Perry and others, and in recent years M. de Montessus de Ballore, in his work *Les Tremblements de Terre*, has given a detailed account of all the earthquake regions of our globe.

When he returned to this country in 1895, Milne set up his observatory at Shide in the Isle of Wight, and by the installation of his instruments at a number of stations all over the earth he inaugurated the first seismological service. The comparative data thus obtained were of the greatest importance, and led rapidly to an increased knowledge of the properties of the earth. This work has been carried on under the auspices of the British Association, and the Committee is still doing yeoman service to Seismology in collecting data in all the five continents. Owing to the splendid lead given by Milne, and the inspiration, skill and devotion of Professor Turner, the seismological service has had the tremendous advantage of a central clearing station, of recent years at the Oxford University Observatory, where year by year the observations of all the stations are collated and examined, and published in annual reports to the Seismological Committee of the British Association.

The present flourishing state of Seismology is entirely due to the splendid way in which observations of seismic phenomena have been contributed by large numbers of people in different parts of the world. As early as 1877, for example, detailed descriptions of seismic phenomena at sea were made by captains

of ships. Thus Captain Murdoch, of the *Denbighshire*, when in the neighbourhood of St. Paul Island, recorded two severe shocks. I quote from his log, which is one of a number collected and discussed by Rudolph.

"The first shock was like a jarring of everything in the ship. On deck it appeared as if the chain cables were running out and the topmost yards were coming down by the run, and it seemed as if every step we took on deck we must fall down. This shock lasted 30 or 40 seconds. All hands had rushed on deck, thinking the ship was on shore, and while sounding the pump the second shock occurred. It was sharp and instantaneous, as if a large cannon had been fired immediately below the ship. . . It was a volcanic eruption or explosion. The noise that accompanied the first shock was like the low groaning of distant thunder, but yet it appeared near and about us."

The land surface of the globe is only a small part of the whole surface of the earth, and there must evidently be a very large number of earthquakes originating below the sea for which no observations by observers on land are available. It is, therefore, of special importance to have records of seismic phenomena at sea. The ships at sea, however, are comparatively few in number, and indeed are few and far between compared with the great stretches of ocean over which they navigate, and the records of earthquakes occurring under the ocean beds are necessarily more incomplete than the records of other earthquakes.

In spite of all these difficulties there is a certain amount of information available as to the frequency with which earthquakes have occurred during the last forty years in different districts of the earth's surface. The seismic maps of the world are of interest in this connection.* A well-known earthquake region is in Italy and the Alps, which has, according to de Ballore, as large a number of earthquakes for its size as Japan. The strongly marked regions appear to be situated on the borders of continents and in areas where geological changes are known to be in progress. Thus, for example, there are areas of strongly marked seismic activity all round the Pacific Ocean, from the East Indies, the Philippines, Japan and Alaska, and along the west coast of America. Thus statistics collected of recent years

* See Knott, *The Physics of Earthquake Phenomena*, p. 97.

show that for every earthquake felt in Great Britain there were (roughly speaking) 50 in Japan and 158 in Greece, the areas of these countries being taken into account.

We have already mentioned the discovery made by Milne in Japan which formed the starting-point of Seismology as an exact science dependent on accurate observations and capable of development in accordance with the general principles of science. In Milne's seismograph we have, as its fundamental characteristic, a horizontal pendulum fitted at its inner end with an agate cup which presses against a steel pivot-point screwed into a vertical iron pillar cast in one piece. The pendulum is supported at its outer end by means of a fine steel wire which passes to a pin at the top of the pillar. Now, when an earthquake is in progress, it is found that there is, in general, a definite movement of the pendulum. In fact, even when the earthquake is at a great distance away (and it is by no means unusual for a seismograph of this type to record seismic movements occurring at a distance of 10,000 kilometres), there is apparently a definite movement of the earth which can be detected by a pendulum, provided that the adjustment of the pendulum is sufficiently delicate. There are many very important mechanical devices for measuring accurately and conveniently the motion of the pendulum, and, in fact, in the Milne seismograph the pendulum carries at its outer end a small transverse plate of aluminium with a narrow slit parallel to the pendulum, which, by means of an ingenious arrangement of a slit in the case which covers the instrument, and an illumination from above, enables a small dot which corresponds to the intersection of the slits to be cast on the surface of some bromide paper, which is wound on the surface of a cylinder made to revolve uniformly, the speed of revolution of the paper being nearly 4 mm. per minute. In this way an accurate and convenient record is obtained of the motion of the tip of the pendulum. It is interesting to see the type of record made on a Milne seismograph when a great earthquake is in progress. There are, first of all, certain oscillations which are called the primary phase, and after a time, which varies for earthquakes at different distances away, the seismogram changes its type, and there is then usually a large movement denoted by S, which initiates the second phase. Its incidence is less sharply marked than P, and it is sometimes very indistinct. This second phase also lasts for a time, depending on the distance away of the earthquake, and then the whole appearance of the

seismogram changes and assumes a strongly periodic character. This phase, which is called the long-wave phase, is usually marked by a few waves of period about 20 seconds, gradually increasing in amplitude. After reaching a maximum amplitude, the waves subside and pass through a succession of maxima before merging into the "tail" or "coda" of the earthquake.

Now the appearances of seismograms to the trained eye present a curious uniformity in spite of the minor variations which occur. And it is found that these characteristic phases of the primary waves and the secondary waves and the long waves are capable of a very important, and at the same time simple, explanation, if we assume that the earth is an elastic solid. For it is known that an elastic solid is capable of transmitting various kinds of waves. It can have a longitudinal wave which moves with a certain velocity V_1, and it can have a transversal type of wave which moves with a different velocity V_2, and when the elastic solid has a shock at a certain point waves of both these kinds are sent out from the centre of the disturbance. In the first kind of waves the various particles move backwards and forwards in the line of wave propagation. In the second kind of waves the particles oscillate backwards and forwards at right-angles to the direction in which the wave is moving. Now, if the earth is an elastic solid, we may expect two trains of waves travelling with two different velocities to be sent out if there is a shock at any point. The starting-points of the two phases P and S can now be interpreted as the arrival of the two types of waves—first the longitudinal waves, which move faster, and then the slower transverse waves. And with this hypothesis we find that the velocities of the two waves are about $5\frac{1}{2}$ km. per second and 3 km. per second in the case of fairly near earthquakes. It is a great achievement to have obtained this amount of agreement between the actual seismograms of various earthquakes at many different stations and the predictions of the theory of elasticity which asserts the existence of two waves of these types. This chapter of seismology, indeed, shows the tremendous difference between a set of observations which have been welded into a science and observations which are discrete and disconnected and which have no underlying theory behind them. Science really begins when some generalization is made which is capable of covering data already obtained and which predicts other data. Now in Seismology, the moment it became reasonably probable that these well-marked P and S phases represented the arrival

of the two kinds of wave, it at once became possible to predict within limits the time each type of wave would take to go a certain distance. And evidently, also, the quicker wave gains a definite amount for every kilometre traversed. Thus a certain definite interval separating the two types of wave in any record betokens a definite distance away of the disturbing cause. Thus, a record at Edinburgh, say, might show a time difference of a certain number of seconds in the start of the P and S phase ; from this we could deduce the distance away of the disturbance. If, then, records at other observatories are also available, we may be in a position to assert that the earthquake was at x km. from one station, at y from another, and at z from a third, and, therefore, that it must lie in the neighbourhood of Tokyo. In this way the many earthquakes already treated have been located. It is to be noticed that the larger the number of records available the larger is the degree of accuracy to be expected in the location of the earthquake itself. And it is also plain that a fair distribution of seismographs all over the world is to be desired, not merely the excessive equipping of stations which lie for the most part in one or two continents only. It is for this reason that Milne was so anxious to establish seismographs in countries not hitherto making any records of seismic phenomena, and, owing to his great zeal, fifty of his seismographs have been distributed all over the world, so that no continent, and few large countries, have remained unrepresented in the international seismological service of the world. Seismology is essentially a science which needs the co-operation of many countries and peoples, and it provides a strong link between the people of the East and those in the West whose scientific pursuits have led them into these absorbingly interesting fields of study.

In spite of the large number of observations of earthquakes which are now available, there is a real need for more material. It is by no means an easy task to deduce the velocities of the P wave and the S wave from the mass of observations, for in the case of each earthquake we do not in general know the exact location of the earthquake. And even if we know the point of the earth's surface under which the earthquake occurs, we do not know how far down the actual disturbance took place. The place at which the disturbance takes place is generally called the " focus," and the point of the earth's surface directly above it is generally called the " epicentre." Thus, in the case of any earthquake, we have to find not only the epicentre—which, in the

case of a large earthquake, may be only too obvious if much damage has been caused, but which is not known to any degree of accuracy in the case of small earthquakes—but also the focus. Now, it is clear that if reliable information were available as to the rates at which the P and S wave travel it would give us some help in our task of making an estimate of the depth of the earthquake focus, for the deeper the focus the longer the path traversed by the waves in getting from the disturbance to an observing station at a certain specific distance from the epicentre of the earthquake. It is, therefore, of great importance to obtain information as reliable as the circumstances permit of the velocity of the P and S waves. It was with a view to obtaining information of this kind that Dr. Jeffreys and I undertook an enquiry into the waves caused by a great explosion at the works of the Badische Anilin und Sodafabrik, at Oppau, in the Bavarian Palatinate, on September 21st, 1921. Oppau is about 5 km. north-west of Mannheim and stands in the Rhine valley. The shock of this tremendous explosion was so great that waves of the P and S type were started in the earth's crust, and these waves, which spread out in all directions, were recorded at Strasbourg, which was 110 km. away, at Nördlingen, 175 km. away, at Zürich, 240 km. away, and at München, which is 282 km. away, by the seismographs which were at work in the various observatories. Now, as we already knew that the disturbance took place at a certain definite place, and took place, in fact, on the surface of the earth, there was no ambiguity at all about the focus or epicentre of the disturbance, and it was, therefore, a simple matter to deduce the velocities with which the primary and secondary waves travelled through the earth's crust. We found the velocities to be 5·4 km. per second for the primary waves and 3·15 km. per second for the secondary waves. With this information, it is now possible to obtain more reliable information as to the precise location of earthquakes which are not more than 200 or 300 km. from the recording station. If it were possible to make a similar investigation in the case of even greater explosions which are sufficiently strong to enable a record to be obtained at much greater distance, further information would become available which would materially increase the probability of making a more correct estimate of the distance away of seismic disturbances, even when these disturbances are —as in fact they generally are in practice—at a far greater distance away than 300 km. But there appear to be grave

difficulties in the way of staging explosions of the required magnitude.

It would be valuable and interesting if some reliable estimates could be made of the depth of earthquake foci in the various great earthquakes. Opinions are very much divided on this topic, Prince Galitzin putting down an estimate of even 1,250 km. for an earthquake he recorded. And it is of interest not only to Seismology but to Geology to know the depth at which these seismic disturbances originate. Seismologists are, in fact, making important and valuable contributions to geological knowledge by their discoveries. The province of the geologist is an extremely difficult one, in so far as it deals with conditions in the interior of the earth. The depth which he can study by direct observation is insignificant in comparison with the radius of the earth. It is, therefore, of extreme importance and interest if, by means of any other science, information can be obtained as to the conditions prevailing in the interior of the earth. Now, it has already been explained that fairly reliable information has been obtained as to the velocity of waves in the surface layer, at least in South Germany, the Netherlands and Alsace, from the Oppau explosion. In so far as the velocities of waves in an elastic solid are known if the elasticity and density of the solid are known, these results yield some information as to the geological properties of the surface layer of the earth, at least in these districts. In the same way, if we are able to discover the velocities of waves coming through parts of the earth below the surface layer—and it is these waves which we are recording in the case of disturbances at a greater distance away than about 400 km. —we shall obtain information for the geologist as to the conditions in the earth below the surface layer. And this information it would be very difficult to get in any other way.

There is outstanding one of the most important of the practical problems connected with Seismology, namely, the question of the possibility of predicting earthquakes. This is a problem of the greatest difficulty and complexity. Much attention has been devoted by the pioneers in Seismology to the possibility that the occurrence of earthquakes may show a relationship to tidal influences. They have also considered how far barometric influences can be correlated with the occurrence of earthquakes. The influence of the sun and moon has also been taken into account. But unfortunately, so far, the results obtained tend to show that earthquakes cannot be

correlated with tidal, barometric, solar, lunar or thermometric influences. Their occurrence is apparently a more complicated matter, and we must, therefore, reluctantly allow that, so far, Seismology is not within sight of a solution of this problem. It is not to be wondered at that this problem should prove to be of so obstinate a character, in view of the amazing difficulty of Seismology, in so far as it depends on the conditions prevailing throughout a large part of the earth's interior. But, on the other hand, it cannot well be doubted that progress is being made on the right lines. It is time and again the case in the development of a science that a real understanding of the phenomena involved must precede the solution of any practical problem associated with them, however pressing this problem may be. This characteristic of science is forcibly brought to our notice in Seismology, for the need for knowledge which will enable us to predict earthquakes is indeed urgent. The activities of the peoples of the countries of marked seismic activity might be considerably extended if warning of coming disasters were available. The death-roll in the last Japanese earthquake covered a terrific amount of suffering and anguish, and any possibility of mitigating the lot of those who live in these geologically unstable regions must be pressed to the uttermost. But, alas! it seems to be probable that such possibilities will be realized only after considerably more knowledge has been acquired of conditions in the earth's interior. The real understanding of Nature, even in one small section of it, is a prodigiously difficult task. It can only be attained by the enthusiastic co-operation of keen far-sighted investigators. The real understanding of even a small corner of Nature is an aim which has spurred on the unnumbered investigators who have been toiling throughout the centuries. Natural Philosophy, which is the ordered expression of the facts of Nature, is not a simple structure; it is woven and interwoven with strands from many different domains. No observation or fact of Nature can ultimately be allowed to remain outside the structure of science. If facts remain outside, the principles of science must be altered as far as is necessary for their inclusion within the scheme of science. The study of the structure of science is an absorbing one, in spite of tremendous difficulties.

The contemplation of the orderly development of facts of Nature brings some understanding of the external world, which is, alas! necessarily incomplete. In science we seek to link

together facts of different kinds so as to see their interrelations: we endeavour so to relate different facts that some may be viewed as logical consequences of the others in the light of general scientific principles. When these relations have been found, it is only the more fundamental facts from which the others may be deduced which need further investigation. This process is going on day by day in the many different sciences, and as time goes on the number of facts to be fitted into the scheme of science increases and the development of the general principles also proceeds. The aim of scientists is to discover the general principles of science, and to make as small as possible the fundamental facts which by means of these principles are sufficient to account for all the other facts of Nature. At any stage, it is only these general principles and the sifted residue of facts which stand in need of explanation. The huge mass of other facts follow logically, though in many cases by no means simply, from the so-called fundamental ones. But at this point the scientist has to stop; he cannot go behind the fundamental facts and principles. From time to time scientists may alter these facts and principles, and suggest new principles which give a more adequate account of the structure of science. This is the case in the recent developments of the theory of Relativity, in which new principles have been formulated by Einstein and other workers in science by means of which certain domains of science can be reconstructed. But the situation from the epistemological point of view remains the same. he ultimate residue of principles and facts which science has to assume remains, and as scientists we can never go further than to reconsider and reconstruct in the light of science's latest discoveries. But the mystery behind still remains.

Discussion.

The Chairman said: I have listened to Dr. Wrinch with very great interest, and, I trust, with much profit, for indeed, hitherto, Seismology is a subject which I have not studied at all. I have only had one personal experience of an earthquake—a very small earthquake indeed—but, if I may use the expression, one of the same class as the Oppau explosion, to which the lecturer referred in the paper to which we have just listened. Like the Oppau earth-

quake, it resulted from an explosion, and the focus and epicentre were coincident. I am referring to the shock caused by the great explosion which took place at Silvertown about the middle of the war. My wife and myself were sitting in my study on that evening in a window looking over the Thames, and towards Silvertown, in Essex, about a couple of miles distant from us. Suddenly we felt our solidly built little cottage—some of its walls are 3 feet or more in thickness—rise, roll and drop, just as an anchored boat will do when a wave passes under it. We had just time to say to each other "We never felt anything like this before," when the noise of explosion, which had come through the air, reached us and was followed by the crash of breaking windows.

Practically all that I know about seismic phenomena comes from two papers which I heard in December, 1922, at the Royal Astronomical Society. The first was given by Dr. Wrinch and her collaborator, Dr. Jeffreys, and was on the Oppau explosion; the other was by Dr. Jeffreys on the Pamir earthquake of February 18th, 1911. In this last the earthquake was synchronous with the fall of a mass of rock, 3 cubic kms. in bulk, and the question was discussed as to which was the cause and which the effect. Dr. Jeffreys concluded that it was the fall of rock that caused the earthquake, so that in this case again the focus and epicentre were coincident; but the earthquake was a world-shaking one. From his study of the system of waves arising from this earthquake, Dr. Jeffreys deduced the important conclusion that the foci of the earthquakes used in the standard tables by seismologists in no single case exceeded the depth of 200 kms.

Remarks by Mr. F. J. Lias: Members have fortunately so little personal knowledge of earthquakes that they may be interested to hear something about them from an associate who has lived in Japan for 20 years, and who has "experienced" dozens, and whose acquaintance with Prof. Milne—"Earthquake Johnny," as he was affectionately called by his friends—dates back to 1888.

The old mythological tradition in Japan was that earthquakes were caused by a dragon of immense proportions living in the Pacific Ocean, whose tail was in the Gulf of Tokyo; and that when the dragon wriggled, the earth shook. Nowadays, however, more commonplace and practical solutions are sought, and perhaps the

most favoured belief is that seismic disturbances are the result of volcanic action on the earth's surface, and more particularly are due to the caving-in of large masses, or of subterranean or sub-oceanic explosions caused by the infiltration of water into the still glowing interior of the earth, which in volcanic areas is not far distant from the surface.

The earth's crust also is far more plastic than most people are aware, and on one occasion I myself actually *saw* an earthquake coming towards me along the street in slow, shallow, rhythmic waves, resembling the slight swell of the sea some days after a storm has passed away. There is also little cause for astonishment at slight earthquake shocks being felt in one part of a city when in another nothing is recorded, as this may be due to the underlying formation—rock being a good conductor, whilst sand, gravel, or any loose geological formation acts as a shock absorber.

At sea earthquakes are rarely felt unless excessively severe, but ships at anchor are particularly subject to shock, owing to the vibrations being communicated to the hull by means of the anchor chains, whilst the greater plasticity of the water, as compared with what we erroneously call *terra firma*, causes shocks thus communicated to be more distinctly felt.

In regard to the longitudinal and transversal waves as recorded by the seismograph, the possibility of the original wave encountering some exceptionally solid form of resistance, in the shape of deep-rooted rock formation, might be borne in mind. The confused seas caused by the *ricochet* of waves from a breakwater will provide a *simile*, and there is also the possibility of an initial seismic disturbance (say a subterranean explosion) reaching a given spot more or less simultaneously (1) by the shortest route direct from the focus, and (2) by the longer way of the plastic surface of the globe.

The following information from a friend recently arrived from Nagasaki may be of interest :—

" Professor Omori, Milne's immediate successor at Tokyo, was of opinion that earthquakes might be due to pressure, contraction and expansion, and that barometric pressure might well exercise a distinct influence. For instance, a long period of high barometric pressure, followed by a sudden drop, would bring about an unequal balance of pressure on the earth's crust, which might react under this influence, particularly where the crust is thin. The choking

of natural vent-holes (volcanoes, geysers, etc.) would cause an increase in internal pressure; and this instability would be likely to develop along a fault in the geological structure, with the possible accompaniment first of sudden expansion (explosion) and then contraction (caving in) of the earth's surface. The influence of the tides on the seismograph is plainly visible near the sea, where a downward and upward movement of the crust is regularly recorded as the waters ebb and flow."

In conclusion, there is nothing that I know more truly awful, in its proper meaning, than a severe earthquake. One feels that the bases of all one's belief in stability are undermined, and that there is nothing left on which to build one's hopes. No experience will steel one against this impression of fear, even when one's nerves are proof against ordinary sensations of alarm. In Japan the old proverb runs that there are four things on this earth of which to be afraid: *Jisshin*, *Kaminari*, *Kwaji*, *Oyaji*—Earthquake, Thunder, Conflagration, Father-in-law; and of these earthquake is easily first. So that anything which will tend to the further explanation of so terrifying an item in their lives, will indeed be a godsend to the sixty millions of people inhabiting Japan.

Mr. HOSTE remarked, with reference to a previous speaker's prophecy of seismological discoveries, that however gratifying it might be to sufferers from earthquakes to have them scientifically explained, he did not quite see what comfort could accrue to persons in the threatened areas to be told an earthquake was shortly due unless some cure could be found. At present the only cure seemed to be to "clear out." He wanted to ask the learned lecturer whether any light had been thrown on the vexed question of the condition existing in the centre of the earth, by variation in the speed of the seismic waves? Would it be possible to compare the rate of the waves when passing through a short piece of normal earth crust in a comparatively non-earthquake region and similar waves in a highly excitable region such as Messina or Tokyo, where the molten condition might be supposed to be existing more generally and nearer the surface?

Mr. WILLIAM C. EDWARDS said: I am sure that we have all enjoyed this instructive and interesting lecture. I am reminded by

it of the pleasant lectures of Milne, who was often not a little humorous.

I hope that some day our learned lecturer will come again and address us upon the earthquakes of Holy Scripture and the Holy Land.

There are not many recorded in God's Word, for although the Holy Land in its making, or preparation for God's chosen people, has probably at some distant date been the scene of the most severe and tremendous earthquakes, it has not, in historical times at least, suffered so much or so often as many other parts of the world.

When the great earthquake occurred in Calcutta the famous missionary, Carey, sat down and read the third verse of Psalm xlvi, which seems to refer to or to contemplate an earthquake : " Though the earth be removed and though the mountains be carried into the midst of the sea ; the waters thereof roar and be troubled ; the mountains shake with the swelling thereof." I don't think that there can be any reasonable doubt that an earthquake is here envisaged.

In the days of King Uzziah there was also a great earthquake, which seems to have so impressed the minds of people that for a long time they appear to have spoken of events as having happened " before " or " after " *the* earthquake ; thus the Prophet Amos writes, " The words that he saw in the days of Jeroboam two years before the earthquake " (Amos i, 1).

The memory or tradition of that awful event was still fresh in the minds of people nearly a century later and when Zechariah wrote (xiv, 5), " Ye shall flee, like as ye fled from before the earthquake in the days of Uzziah King of Judah, and the Lord my God shall come and all the saints with thee."

In Zech. xiv, 4, we have also a prophecy of a coming earthquake, perhaps two following earthquakes :—" The Mount of Olives shall cleave in the midst thereof toward the East and toward the West, a very great valley, and half of the mountain shall remove toward the North and half of it toward the South."

When our Lord was leaving the Temple for the last time before His Crucifixion, the Disciples on this same Mount of Olives asked Him three questions :—When shall these things be ? What the sign of Thy coming ? and the Consummation of the Age ? (Matt. xxiv, 3). In effect, the same questions are repeated in Mark xiii, 4, and Luke xxi, 7. Now observe carefully the answers.

There are the wars of Nation against Nation and Kingdom against Kingdom, famines and pestilences, and "earthquakes in divers places" (Matt. xxiv, 7); "there shall be earthquakes in divers places" (Mark iii, 8); "and great earthquakes shall be in divers places" (Luke xxi, 2).

These are the united signs that are apparently to precede the coming of our Lord, and I should like to ask our learned lecturer if we have not in late years been having an exceptional number of earthquakes following the world war of Nation against Nation and Kingdom against Kingdom, as well as famines and pestilences; if so, may not these be the signs that our Lord gave His disciples then, and gives to us now, to warn us to watch, wait, and be ready for His speedy return?

Dr. WRINCH'S reply: The science of Seismology and the practice of systematic seismological observation have only a short history at present. And although there have been observations and records of earthquakes, as, for example, those to which Mr. Edwards has referred in biblical times, we have unfortunately no means whatsoever of making a comparison of the frequency of earthquakes in these times and the frequency during the last few years. If there has indeed been an increase in seismic activity during the years since the war, in comparison with the activity in biblical times, it would be of importance to physicists and geologists to know it; but I can think of no data which would put us in a position to support the assertion on grounds of scientific observation. On the other hand, if we turn to the question of the prior probability of the increase of seismic phenomena—and it is, of course, frequently necessary in scientific theory to turn to prior probabilities when data are lacking—I still feel quite unable to support the suggestion.

The CHAIRMAN said: Just a week ago I received from Canada a paper containing a report—partly scientific, partly descriptive—of the great Japanese earthquake of September 1st, 1923. Captain Robinson, Commander of the Canadian Pacific ss. *Empress of Australia*, which was about to leave Yokohama en route for Vancouver, uses almost the very words which Mr. Lias has given us in his description just now. "The land was rolling in waves, like a succession of fast moving ocean swells." More than half a million houses were destroyed, and more than 100,000 lives were lost.

There is an urgent need for knowledge which will enable us to predict earthquakes so that some warning may be given of coming disaster.

On behalf of the Victoria Institute, and as representing this meeting, Dr. Wrinch, I desire to thank you for your most clear and instructive paper.

In reply to a question by Mr. MAUNDER as to whether the P and S waves moved uniformly at all distances from the epicentres, Dr. WRINCH sent the following table, which is a shortened form of that generally used in calculating the distance of the epicentre from the observing station :—

Deg.	P. Sec.	S. Sec.	S.P. Sec.	Deg.	P. Sec.	S. Sec	S.P. Sec.	Deg.	P. Sec.	S. Sec.	S.P. Sec.
1	15	28	13	51	553	991	438	101	855	1,565	710
10	150	269	119	60	612	1,103	491	110	897	1,647	751
20	281	503	222	70	677	1,226	549	120	942	1,729	787
30	388	694	306	80	739	1,343	604	130	988	1,801	813
40	475	847	372	90	796	1,454	658	140	1,031	1,864	833
50	547	979	432	100	851	1,556	705	150	1,071	1,917	846

672ND ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, FEBRUARY 9TH, 1925, AT 4.30 P.M.

DR. JAMES W. THIRTLE, M.R.A.S., F.R.G.S., IN THE CHAIR.

The CHAIRMAN, at the beginning of the Meeting, announced that as the arrival of Professor Clay's paper on the "Amurru" had been delayed, Mr. Avary H. Forbes had kindly consented to read his paper, announced for the 23rd.

The Minutes of the previous Meeting were read, confirmed and signed, and the Honorary Secretary announced the following elections:— As a Member, Mr. T. Tweedale Edwards; and as Associates, Miss C. A. M. Pearce, the Rev. Eric Lewis, B.A., and the Rev. Harold C. Morton, Ph.D.

The CHAIRMAN then called on Mr. Avary H. Forbes to read his paper on "Psychology in the Light of History: a Study in Heredity."

PSYCHOLOGY IN THE LIGHT OF HISTORY: A STUDY IN HEREDITY.

By AVARY H. FORBES, ESQ., M.A.

IT will probably be admitted by all, that the two largest channels through which the evidence for Evolution flows are Heredity and Environment, and that, if one of these channels be blocked, the other will hardly be able to keep the theory alive. Of these channels, Heredity seems to be the most important, because it deals with the very essence of human nature. Libraries of learning have been written on the subject and by scientists of the first magnitude, yet I venture to think that this problem is best dealt with apart from learning, and that here Hobbes's paradox holds good—"If I had read as much as some of my critics, I should have been as ignorant as they." At all events I intend to treat the problem from the standpoint of observation and common sense alone; and I maintain that, from that standpoint, the Biblical account of the origin of man is not only true, but that it is scientifically and *necessarily* true. Let us at once bring Revelation and Evolution face to face.

In Genesis we are told that our race began in a state of sinless innocence, happiness and completeness of life, and that, by an act of disobedience to God, it fell to a state of incompleteness, sin, sorrow, pain, disease and death. Holy Scripture again teaches that the race has ever since been suffering from the effects of the Fall, and that such suffering is inevitable. Evolution teaches that the race has been slowly but surely eliminating the evils and degradation of existence, and advancing, intellectually and morally, to a height of being as yet unforeseen. Genesis tells us of two beings—and only two—holy, harmless, undefiled, descending, through the tragedy of sin, to the level of the beasts, and below them. The other teaches the development of our race from an atom, and passing through stages of protoplasm, tadpole, jelly-fish, amphibious creatures and ape-like animals, to a highly moral and intellectual being. The one, therefore, is the story of a stupendous fall from good to bad, from glory to shame, from life to death. The other is the story of a stupendous rise from squalor to sublimity, from a germ to a genius, from a microbe to a philosopher.

No two doctrines therefore could be more opposed, and as Evolution holds the upper hand to-day in almost all scientific schools, the Edenic story—" the feeble myth of Genesis "—is little more than food for mirth amongst the schools of science, " the incubus of the philosopher and the opprobium of the orthodox," as Huxley termed it. Some Christian people tell us they can reconcile the two accounts, and say that Darwin was right, and yet Moses was not wrong. The " reconciliation," however, is usually effected by compromises largely at the expense of Moses. Darwin himself could not reconcile them. In a letter to Lyell (March 28th, 1859), he speaks about the " unorthodoxy " of his *Origin of Species* being " not more than any geological treatise which runs slap-counter to Genesis."* And this unorthodoxy led him, naturally and gradually (as he tells us himself), to complete disbelief in Revelation.†

One secret of the great and speedy popularity of " Darwinism " is the assumption that Evolution spells *progress*, and the whole subject resolves itself (for the present purpose, at all events) into two great questions requiring separate answers.

---

* *Life of Darwin*, by his son. Chap. 11.
† *Ibid.*, Chap. 3.

First (A), Is the history of the human race (or Evolution) one of progress? Secondly (B), If so, does it square with the facts of human psychology? Both these claims I answer in the negative.

A general progressive improvement would manifest itself in three departments—Physical, Intellectual, and Moral.

A.—(1) HAS THE RACE PROGRESSED PHYSICALLY?

With the biological proofs of Evolution (being no scientist) I shall not meddle, and the physical triumphs of modern civilization I, of course, freely admit. From the middle of the eighteenth century to the present day there has been a period of unparalleled inventions and discoveries. Steam and electricity have been applied to manufactures, labour and locomotion, and, with chemistry, have completely revolutionized those activities. Steamers and railways have been invented, and the telephone, the phonograph, the telegraph, the microphone, the submarine, the motor, the aeroplane, radium, photography, X-rays, anæsthetics, wireless, and a vast number of other discoveries and inventions have come upon the scene. But all this is mere *mechanics*, and its value as a factor of actual improvement depends entirely on the moral results. To enable five, ten, or twenty men to live where one man lived before sounds like a gigantic improvement. It may be the reverse. It depends on whether the ten or twenty are as good or as happy as the original one. If they are not, it may be a curse rather than a blessing. And who will say that the people of this century are really happier than their forefathers of 500 years ago? Is not this the age *par excellence* of rush and hurry, strife and competition, nerve-strain, breakdowns, dyspepsia, insomnia and insanity, and that in an ever-increasing ratio?

The only industry that God appointed for man was agriculture. And what occupation could be more agreeable, where man is continually called upon to observe the wonderful works of God? But even the country is no longer what it was; it is undergoing a great transformation. Our old quietude, with its farmyard sights and sounds, is fast becoming a thing of the past. The sylvan solitude of lanes and woods and valleys are everywhere broken in on by the motor and the aeroplane, and soon there will be no such thing as a rural retreat anywhere.

Not only has machinery modified or destroyed a great part of our agricultural operations, but we are continually

abandoning the country and betaking ourselves to city life, with its awful monotony of desk and office, ledger, telephone, and typewriter, sedentary work in artificial light and late hours, vitiated atmosphere of smoke or fog, where men earn their bread, not in the sweat of their brow, but in the sweat of their brain.

Cities, too, are the most dependent places on earth. Cut off from the country, they are absolutely helpless. Without coal and iron supplies, their manufactures are at an end. Without food supplies, their shops close and the citizens starve. City work, too, in all its forms is pernicious as compared with work in the country.*

Chemistry, the greatest scientific triumph of all, has profoundly modified the whole conditions of life, both in war and in peace. Our first parents were forbidden to eat of the "tree of the knowledge of good and evil." Of "good," be it noted, as well as evil. Chemistry is a big branch of that tree, and it shows us to-day how dangerous it is to presume too far (though we think it for our good) on God's laws. "God made man upright," said Solomon, "but they have sought out many inventions." The Post-diluvians thought to build a tower that would reach to Heaven—"And now," said the Almighty, "nothing will be restrained from them"—and they were confounded by their intellect being turned against them. And is it not the same to-day? The triumphs of science have been *turned against mankind*. We are coming to live more and more by chemistry. Nearly all our foods are prepared, and nearly all prepared foods are faked and adulterated with chemicals which are more or less deleterious.

"The increase of cancer in recent years," said Sir Frederick Treves, "has been exactly coincident with the introduction of preserved food, cold-storage supplies, tinned foods, concentrated foods, extracts, and foods treated with preservatives." Not only foods, but almost everything we wear or utilize is tampered with. To give one example: Our coffee is adulterated with the following articles—chicory, ground acorns, mangold-wurzel, roasted carrots, parsnips, turnips, horse-chestnuts, dog-biscuit, red earth, baked horse's liver, or mahogany sawdust.

Oh! But you say this is our own fault, since the analytical

* It is noteworthy that, when God appointed a land for His chosen people, He gave them one without coal and without iron.

chemist can expose the fraud. This is not so easily done, for the very chemicals used by the analyst *are themselves adulterated*, and are therefore unreliable!

Again, in the Great War, chemistry was *the* great weapon of destruction, and chemical science was utilized for the destruction of life and property on a scale hitherto unexampled in history. Torture of the most horrible kind was inflicted on the soldiers, and non-combatants suffered as never before. All that was humane in international law was trampled on, and women and children, the aged, the poor, the sick and the wounded suffered alike. One nation began, and the others had to follow in self-defence.

Before the fourteenth century weapons of defence were effective. With the invention of gunpowder a great duel began between weapons of offence and of defence; and now the former have won all along the line. Gunpowder has been left far behind by modern explosives. But it is not so much explosives as *poisons* that will be utilized in the next war, and that war will be carried on chiefly in the air. A French military expert has consequently advised the scientist to concentrate on asphyxiating bombs and mustard and other deadly gases, which will affect the civil equally with the military population, by producing "congestion of the pulmonary system and death. Aeroplanes dropping mustard-gas on a town will cause the death of many of its inhabitants, and render the place uninhabitable for a number of days. It will also have the great moral effect of tending to ruin the resisting power of a nation. . . . It will also cause dreadful pain, and in many cases permanent blindness. Gas experts should endeavour to render it more persistent and dangerous."*

Another form of slaughter will be by disseminating the bacilli of anthrax and other deadly diseases. These germs are being cultivated by the Medical Research Council; millions of billions of them are preserved in glass tubes. In one little test-tube (and there are many thousands of such tubes) "there are countless millions of plague bacilli, and, if they were let loose, they would kill half the people" in the town.† It is now admitted that, by one or other of these methods, the whole population of a great city, even of London, *could be wiped out in an hour's*

---

* *Morning Post*, May 18th, 1920.

† Dr. St. John Brookes, D.M., speaking at Chelsea, May 18th, 1920.

time. We read also of later inventions—a certain "ray of death," which is capable of killing a man or an army at a distance; and of aeroplanes worked by wireless, capable of travelling hundreds of miles without an occupant, and dropping deadly bombs wherever required; yet we are only on the threshold of life-destroying inventions! Could any prospects be more essentially diabolical than these scientific inventions, which point to the extermination of the whole human race from off the face of the earth? But, however, the dream of the builders of Babel may be realized, and a remnant of the race may escape; for a Cambridge professor tells us, that "If the hydrogen in a tablespoonful of water could be transmuted into helium, the energy liberated would be far beyond the dreams of scientific fiction, with which the human race could alter the climate of the earth, or possible *migrate to a neighbouring planet.*"* May we not well ask, is Evolution even physical progress?

Meanwhile the importance of chemistry in war, both for offence and defence, together with its money-making possibilities in peace time, has stimulated the cultivation of the subject in every civilized country, and laboratories have sprung up everywhere. But these laboratories, even when worked with the best intentions, cannot be worked with impunity. They take their toll of human health and life, and that with terrible cruelty. They are one and all hot-beds of septic poisoning arising from the poisonous fumes, and the workers have to face fresh battalions of disease and ailments—headache, anæmia, depression, stupor, vertigo, distress in breathing, impaired eyesight, nausea, inflamed kidneys, rapid pulse, chest pains, heart pains, gastric catarrh, paralysis, nausea, vomiting, fever, convulsions.†

I do not mean to represent human nature as actually degenerating. I believe it is morally stationary, neither better nor worse than it always has been. It is the *environment* created by science which has brought about the deterioration of life and character.

(2) Has the Race Progressed Intellectually?

I have no intention of trying to revive the "Boyle and Bentley" controversy of the eighteenth century. To deal with it properly

* *Morning Post*, August 13th, 1922.

† *Manual of Explosives*. By Ramsay and Weston (Chap. vii). "The Medical Department of Krupp's factory at Essen is a large and essential branch of the business. The doctors have to be incessantly attending to cases of fainting, nausea, heart trouble and blood-poisoning."

would require far more learning than I possess, and I hardly think that the problem is capable of a satisfactory answer. That information, knowledge, facts, have vastly increased is indisputable; but that that increase is favourable to the moral nature, or even to worldly wisdom, has yet to be shown.

"Knowledge comes, but wisdom lingers."

So said Tennyson. Bacon said practically the same, and I think they were both right. This plethora of information, too, is piled up at the expense of our other faculties, for science has a trick of taking away with one hand more than she gives with the other; and as the sight is spoilt by reading, so the memory is spoilt by learning.

But I shall content myself with citing A. R. Wallace on this point: "The great majority of educated persons hold the opinion that we are more intellectual and wiser than the men of past ages, that our mental faculties have increased in power. But the idea is totally unfounded."*

(3) Has the Race Progressed Morally?

The third question is a still greater one, for if there has not been moral progress in the history of the race there has been no progress at all. Now, if ever in the history of mankind Evolution had a field for display, and a chance, so to speak, of showing that it really was progressive improvement, it has been during the last 100 years. In that period Evolution has had, as it were, everywhere its own way. In the course of that century a whole series of revolutions took place. The Industrial Revolution was followed by the Scientific Revolution, and the movement spread to medicine, hygiene, chemistry, locomotion, agriculture, and to all the arts and manufactures, and, above all, to education in all its branches; and almost every phase of national and international life has been transformed. If, therefore, there has not been large and definite moral progress during this period (or, at all events, by the end of it), it is surely impossible to believe that there has been any improvement in the human race; or, rather, it will be difficult to deny that there is a principle of degeneration at work. Darwin was a very candid man and never minimized objections to his own conclusions. It would be interesting, therefore, to know what he would say on this point were he alive now. Alfred R. Wallace (the co-originator with

* *Social Environment*, Chap. iv.

Darwin of the Evolution theory) was an equally candid man. He survived till a few years ago, and he has left us in no doubt as to his opinion. In 1913 he published his *Social Environment and Moral Progress*, in which he investigates very impartially the morality of our present social system, and finds it everywhere going from bad to worse. He deals with unhealthy trades, adulteration of food, bogus companies, commercial falsehoods, gambling, bribery, rings and combines worked by "ingenious robbers," the White Slave Traffic, drunkenness, suicide, and gratuitous infant mortality ("Who has murdered the 100,000 children who die annually before they are one year old?") These evil products we have ourselves created in the course of a single century. As to improvement in character, "there is no proof of any real advance in it during the whole historical period." His final verdict is as follows: "*Taking account of these various groups of undoubted facts, many of which are so gross, so terrible, that they cannot be overstated, it is not too much to say that our whole system of society is rotten from top to bottom, and the social environment as a whole, in relation to our possibilities and our claims, is the worst that the world has ever seen.*"*

This seems fatal for the doctrine of Evolution, as generally understood. Is there no loophole, no saving factor? Oh, yes, there is; it is in the *future*. All this degeneration is transitory, and things will right themselves by and by. "Laws, under reasonable, just and economic conditions, will automatically abolish all these evils. . . . When we have cleansed the Augean stable of our present social organization . . . the future progress of the race will be rendered certain" (pp. 131–2 and 146).†

Sir Oliver Lodge recognizes the present "devilization" of things as clearly as Wallace did, and, like him, he flies for salvation to the future. These evils, he says, are "a disease of civilization, a mania . . . a devil that must be cast out . . . some day the race will realize its possibility and duty in this respect," etc.

Let us take an analogy fron physical nature. The Ganges rises in the Himalayas and flows down its slopes, and on through the valleys of Northern India down to the sea. What does that

---

* Chap. 17. The italics are those of Wallace himself.

† Darwin thought the same. "Looking to future generations . . . we may expect that virtuous habits will grow stronger, becoming perhaps fixed by inheritance. In this case the struggle between the higher and lower impulses will be less severe, and virtue will be triumphant."

mean? It means, first, that the Ganges (like all other rivers) has a source higher than its own level; secondly, that it is ever seeking to rise to the level of its source; and, thirdly, that it never does, and never can, reach that level. More than that, the farther it flows the greater the disparity between its own level and that of its source; so that, if Wallace is right—that our most up-to-date civilization is "the worst the world has ever seen"—the analogy is complete.

It would be amusing, were it not pathetic, to see how all the great Evolutionists and social reformers find their panacea in the future (and almost always, be it remembered, by *materialistic readjustments*), and yet do not notice the peculiarity of their logic. Under the highest triumphs of science, things are admittedly going from bad to worse with headlong speed; therefore the future progress and happiness of the race will be rendered certain, and water will flow uphill!

B.—The Facts of Psychology.

(*a*) *The Ideal Lost.*

Leaving the question of progressive improvement, let us see what Psychology has to say to the theory of Darwinian Evolution,—a part of the argument which has, according to my small reading, been entirely overlooked in the controversy; yet it appears to be a very vulnerable spot in the citadel. I assert, then, that Darwinian Evolution runs counter to the facts of human psychology, that those facts confirm the Bible story, and that if we did not find that story there we should have had to invent it ourselves.

A butterfly, if it could reason, would not look with pleasure at the chrysalis from which it sprang. Flying over hedges, lighting on flowers and basking in gardens, it would look with aversion on the dirty shell sticking to the wall of an out-house and surrounded with cobwebs and dust and a foul and gloomy atmosphere. Similarly, if men were descended through an ape-like ancestor from a tadpole, a jelly-fish, protoplasm, they would instinctively regard their past with loathing and disgust. That is why the Evolutionist is so in love with the future as the solution of all human problems. "Look ahead for your ideals," he says. "Take a scientific interest, if you like, in the past, but for your ideal you must look to the future. Look away, therefore, and from the past—with its wars and struggles, its

errors and cruelties, its vice and agony—to the consummation of universal culture, happiness and peace in the far-off future." Such is the peremptory mandate of Evolution. But human nature will do nothing of the kind. She persists in looking to the past, and seeing there, not an insensate degradation from which she has been evolved, but *an ideal eminence from which she has fallen.* The scientific and the unscientific mind are at one in *contemplating* the ideal. Everywhere the thoughtful mind credits human nature with the possibility of a state in which ignorance, pain, want, hatred, sorrow and all evils are absent, and where life is synonymous with happiness. But, though scientific dogmatism says that this ideal is ahead of us, or nowhere, the human heart is hopelessly in love with the past; and the words "old-fashioned," "antique," "ancient," and "quaint," have a subtle and inextinguishable charm. The sentiment is a difficult one to express briefly, yet there are phrases which embody portions of it, *e.g.*, "the good old times," "the brave days of old," "the golden age," etc.

The poets are particularly fond of painting the Age of Gold, *always in the far-off past.* Many poets seem to revel in it; not those of our own time alone, but the pagan poets of Rome and Greece indulged the sentiment. Tibullus tells us that in the Golden Age of Saturn neither ox was yoked nor steed bitted; that the houses had no doors, or the estates boundary stones. There were no armies, no war, no swords, no angry passions. "While now, under Jupiter as ruler, there is ever slaughter and wounds."* Ovid declares that in the Golden Age there was no magistrate, yet good faith and right flourished without the aid of law. Punishment and fear were unknown. No trenches surrounded the towns, no war trumpets were blown, no helmets or swords manufactured; "without the need of soldiers, the nations, free from care, maintained agreeable leisure."† Horace likewise speaks of the Fortunate Isles as a relic preserved by Jupiter when the Golden Age had degenerated to brass, and the brass to iron.‡ Virgil places his ideal

---

* *Opera* 1–3, l. 40 *et seq.*

† *Metamorphoses* I, l. 89 *et seq.* (*Sine militis usu mollia secuare perage-bant otia gentes.*) The whole of the *Metamorphoses* is full of the same sentiment.

‡ *Epodes*, 16, l. 64–66. (*Ut inquinavit aere tempus aureum; aere dehinc ferro duravit saecula.*)

in the past likewise; for in the *Æneid* he tells us "that the Golden Age was when Saturn ruled, when the people lived in placid peace, until by degrees a worse and discoloured age and the madness of war and greed of possession succeeded.* Even in Homer we have the lotus-eaters enjoying a paradise in which they wished to live for ever.† Nay, Hesiod (perhaps the earliest of all the Greek poets) speaks of five ages, the first of which he calls the Age of Gold.‡

When, moreover, any poet coins a happy line or phrase, expressive of this sentiment, it is recognized as a touch of nature which makes the whole world kin, and is seized on as meeting a "long-felt want." Thus, Burns's "Auld Lang Syne" has become perhaps the most popular song ever written, and has been translated into some sixteen languages.§

Old china, old silver, old paintings, prints and works of art of all sorts are highly prized, and have a prodigious commercial value, not because they are useful, but because they are *old.* I may have a Bible with admirable references, notes and other helps, and if I want to sell it I may get a shilling for it. But if it is in a dead language and old black letter, without any helps or references, and practically useless, but provided it was printed in 1455, I could get £5,000 or £6,000 for it.

What a fascination old furniture, old houses, old castles, old towns and villages have for all of us!

If this sentiment were factitious and not of the essence of our psychology it would be lessened or eliminated in democratic and innovating times. But that this is far from being true, the case of America proves. The ancient cities and monuments of Europe have a wonderful attraction for Americans. Westminster Abbey is probably more venerated on the other side of the Atlantic then it is here, and what affects our American cousins most of all, it is said, is to be shown the holes in the cloisters where the Westminster schoolboys used to play marbles before America was discovered.

Literature abounds with this sentiment springing from the consciousness of a lost ideal. Indeed, were the sentiment to

---

* Book 8, l. 324 *et seq.*

† *Odyssey* 9, l. 82 *et seq.*

‡ *Weeks and Days*, l. 167. See also Virgil's *Georgics*, l. 12. Ovid, *Fasti*, l. 247 *et seq.*

§ Japanese gentlemen tell me it is familiar in Japan.

be taken away, our poetry would be well-nigh bankrupt of beauty and pathos. There are three fields in literature in which this lost ideal is sought for or lamented—vanished youth, deceased friends and ancient history.

YOUTH.—No sooner has youth passed than it assumes an attractiveness which it never had while it was present.

Listen to Byron :—

"O talk not to me of a name great in story ;
The days of our youth are the days of our glory."

Listen to Wordsworth :—

"Heaven lies about us in our infancy !
Shades of the prison-house begin to close
Upon the growing boy."

Listen to Coleridge :—

"O youth ! For years so many and sweet,
'Tis known that thou and I were one.
I'll think it but a fond conceit—
It cannot be that thou art gone !

* * * * *

Thy vesper bell hath not yet tolled—
And thou were aye a masker bold. . . .
Life is but thought ; so think I will
That youth and I are housemates still."

Listen to Vaughan :—

"Happy those early days when I
Shined in my angel infancy. . . .
O how I long to travel back
And tread again that ancient track ! "

DEATH.—Our friends are dear to us, but when they die they become trebly dear, and persons who never composed any other poetry have written elegies on their lost friends ; and it need not surprise us that a large portion of poetical masterpieces, from "Astrophel" to "In Memoriam," are in the nature of a dirge.

ANCIENT HISTORY.—We have seen that this tendency to idealise the past is very ancient. It was a tendency in Solomon's time, and one of which he did not approve : "Say not thou, What is the cause that the former days were better than these ? for thou dost not inquire wisely concerning this." (*Eccles.* vii, 10.) Macaulay was not given to sentimentality. He has told us so himself, and he would undoubtedly have agreed

with the Preacher as heartily as any Evolutionist of to-day. Yet Macaulay no more than anyone else can rid himself of the fascination of a distant past, and when he gets into verse he lets the tendency have full play :—

> " *Then* none was for a party ;
> Then all were for the state.
> Then the great man helped the poor
> And the poor man loved the great.
> Then lands were fairly portioned,
> Then spoils were fairly sold,
> The Romans were like brothers
> In the brave days of old."
>
> * * * * *
>
> *Now* Roman is to Roman
> More hateful than a foe," etc.

To this element in our nature must also be attributed the fact that the Greek mythology has such an irresistible attraction for all educated minds. That mythology contains much wit and wisdom, though mixed up with a good deal that is childish, grotesque and vicious. But it was far off, unreal, imaginary, and it has in it many of the elements of the ideal. That was enough ; and many a genius who would have scorned to accept the " Garden of Eden," has loved to revel in the " Gardens of the Hesperides " and the " Elysian Fields." Such writers as Leigh Hunt, Keats, Byron, Shelley and Matthew Arnold would laugh at the idea of sin and sorrow being introduced to the earth by Satan—a fallen angel expelled from Heaven, and tempting Eve with an apple ; but the expulsion of Ate from the celestial regions and the discord she spread on earth by the apple she threw among the guests at Peleus' wedding is for them a graceful and poetic ornament. The tree of life, guarded by Cherubim and a flaming sword, was an incredible myth ; but planted on Mount Atlas, and guarded by a watchful dragon, it is very welcome to flourish :—

> " All amidst the gardens fair
> Of Hesperus and his daughters three,
> That sing around the golden tree."

The idea of Cain marrying his sister is a great stumbling-block ; not so Jupiter marrying his sister Juno, or Saturn his daughter Vesta :—

> " In Saturn's reign,
> Such mixture was not held a stain."

Noah's flood must be repudiated, but Deucalion's may be tolerated. Samson and his exploits must be cast out, but they may come back under the name of Hercules and his Labours. Joshua's arrest of the sun is an inconceivable fable, but Phaethon's allowing the sun-chariot to go out of its course for a day (and thereby delaying it) is a beautiful allegory. That the walls of Jericho should fall down at the blast of Joshua's trumpets cannot be admitted, but Amphion may be allowed to build the walls of Thebes by the music of his lyre. That Lot's wife should become a pillar of salt because she looked back at Sodom is unthinkable, but that everyone that looked at Medusa's head should be turned into stone is abundantly instructive. That Saul, by the help of the witch of Endor, should recall Samuel from the world of spirits is an old wives' fable, but that Orpheus should visit Hades and lead back "his half-regained Eurydice" to the confines of this world is an edifying poeticism. Parallels might be pointed out indefinitely.

Of course, our poets did not *believe* these myths any more than they did the Biblical stories. That, however, is not the point. The point is, that what one part of our nature discards another part demands back. What the intellect rejects the imagination revels in. Reason may expel the world of miracle by one door as long as fancy admits it by another.

Surely all this worship of the past, as a universal instinct in human nature, would be a contradiction, a psychological impossibility, if man were descended from protoplasm, a germ, or (as someone has, with brutal bluntness, termed it) "a speck of palpitating slime"!

(*b*) *The Ideal Sought.*

The psychological argument, however, is not exhausted by the foregoing considerations. The loss of anything stimulates us to recover the thing or person lost. And a further scrutiny of human nature will show us that there is not only a universal worshipping of and lament for the past, but also an incessant and world-wide struggle *to regain the lost ideal*, and, at the same time, an incessant and world-wide *failure* to succeed. This great principle is commensurate with, and inseparable from, the whole of human existence, for what is all life but an endeavour to recover a lost ideal?

The goal of physical science itself, what is it but the realization of the ideal? To master the forces of nature and thereby facilitate the production of food, clothing, buildings, wealth of every kind; to discover new remedies for disease, to improve sanitation and prevent sickness, to make travelling cheap and easy, to diminish

exertion and yet increase the fruits of labour; these are the means which science adopts to eliminate the evils of existence and bring about an age of universal peace and plenty. Thus her methods differ from, but her goal is the same as, that of the poet and the philosopher. The former hopes to win, chiefly by supplying corporeal desiderata: the latter by ministering chiefly to the moral and intellectual demands of human nature.

At present the methods of physical science hold the field. Moral and religious teachers, unless they conform their doctrines in some way to the theories demanded by Evolution, are hardly listened to. The very word "science" has almost come to be synonymous with *physical* science. Yet nearly everyone seems blind to the fact that the methods of physical science can *never* bring to the human race the wished-for millennium. They may multiply the race, but to think that by so doing the *happiness* of the people is increased is one of those essential delusions which neither logic nor accumulated experience will ever destroy. Meanwhile, the belief prevails, and the effort is made. In almost every walk of civilized life there is a constant attempt being made to recover a lost ideal. Look at this fact in connection with governments, institutions, authorship, oratory, art, literature, poetry, the country and the Church.

Our governments are theoretically good; but in practice, mistakes, follies, blunders, even crimes, are committed by those very persons who form or administer them. Our legislation shows not the smallest sign of reaching a goal. The new laws to be made increase rather than diminish from year to year. Our laws, too, are mostly righteous and better than can be carried out. Criminals often escape, and the innocent suffer. Thousands of persons prefer to take the wrong which the law condemns rather than face the delay, the expense, the pitfalls which beset an appeal to those laws.

It is similar with our Institutions. While they are for the most part well designed and provided for and, on the whole, creditably worked, their theory and spirit are being continually violated by corruption, self-interest, party spirit and ignorance.

The same holds good of Authorship, Oratory and Politics. How many of the books and speeches with which the public are so liberally supplied are a faithful counterpart of the life and character of the author or speaker? Or how many persons would like to have their public professions tested by a candid comparison with their private conduct? Immediately a man steps on the platform or takes a pen in his hand he begins, in a greater or less degree, to act a part.

He sets about erecting a standard which he himself does not and cannot altogether act up to. All this is equally true of the minister of religion, be he an open-air preacher, a Free Church minister, a vicar in his parish pulpit, or a bishop in his cathedral. His exhortations to faith and love and obedience and humility and self-sacrifice and holiness invariably point to a higher life than he himself lives up to. Nor is there necessarily in all this anything of conscious hypocrisy. With the purest motives and the best intentions man's heart continually goes out towards the ideal. A man who preached no better life and doctrine than he and his hearers lived up to would soon cease to be listened to.

Everywhere men wish to be thought better than they are—more consistent, truthful, disinterested, honest, generous. A little time spent in our criminal courts would show that this is true even of the most profligate and abandoned characters. Before the scrutiny of the jury, the ears of the judge, and the eyes of the public the criminal will soon be put to the blush; or, if he be literally too hardened to blush, he will perjure himself, accuse others commit a worse offence than that of which he is accused if he can thereby only persuade the court and public that he is innocent. And this is not done merely to escape punishment. Murderers often go to the gallows with a lie on their lips rather than own their guilt before their fellow-men.

Art is another field, and a large one, in which men seek to recover the lost ideal. Art is not a mere transcript of nature. The artist always seeks to *improve* upon nature. A landscape painter will not be satisfied to paint *any* scene. He will choose one that he thinks particularly beautiful; and even then he will try to improve it, throwing in a tree or a cottage or a figure to give symmetry or human interest to the picture. The same principle obtains in portrait painting and even in photography. All this is psychologically natural, because men are everywhere seeking, and everywhere failing, to recover the lost ideal. Sir Joshua Reynolds saw that this truth held good in his own art, and frankly acknowledged it. The goal of the true painter, he said, is an idea which "subsists only in the mind; the sight never beheld it, nor has the hand expressed it; it is an idea residing in the breast of the artist which he is always labouring to impart, and which he dies at last without imparting."

The like reasoning is true of music and poetry, which are always striving, and always failing, to reach perfection. Keats and Shelley

are especially frank on the psychology of poetry. Fancy, says the former, is our ideal messenger, restoring the past, divining the future, and always superior to reality.

> "Then let winged fancy wander
> Through the thought still spread beyond her.
> * * * * *
> She will bring, in spite of frost,
> Beauties that the earth hath lost."

Shelley is even deeper and more true in this matter. The poet, he says, is a professional idealist, whose vocation it is not to copy nature, but to create—not to reflect reality, but to beget scenes and beings beyond experience. But—

> "From these create he can
> Forms more real than living man,
> Nurslings of immortality."

It is the same with prose, fiction and the drama. The heroes and heroines of our literature, from Palamon to Arthur and from Griselda to Diana Vernon, are so many ideal beings with just enough humanity about them to make them intelligible and possible. Mere transcripts never satisfy. There must be, as in painting, artistic selection and embellishment, and the author who cannot give us this will fail to please.

Nowhere is the search for the lost ideal carried on more earnestly than in the department of Love poetry. But the passion has always a *past* or a *future*—never a present foundation. Love poetry is almost invariably composed before marriage or after death. Some people love a city life; others, perhaps the majority of poetic minds, seek their ideal in rural retirement. The *Hoc erat in votis* of Horace has been echoed by multitudes of bards and minstrels down to our own days. To quote examples would be superfluous. Our literature abounds with "Arcadias" in prose and verse, from the "Flower and the Leaf" to the "Lotus-Eaters." Chaucer, Spenser, Milton, Cowper, Shelley, Wordsworth, Tennyson, are full of the passionate appreciation of rural quietude.

Huxley admitted that he could not account for our love of beautiful scenery on any principle of Evolution. He could not see that it in any way contributed to the survival of the fittest or the development of the race. But if (as he contended) we are evolved from a speck of protoplasm, how could he account for our inveterate tendency to adore *antiquity* also? In the solution here

contended for (*i.e.*, the Biblical one), both tendencies take their place naturally in the human problem. Milton has lavished all his wealth of poetic imagery in describing the Garden of Eden, and most readers will join with Addison in thanking him for doing so, for beautiful scenery is particularly suggestive of the recovery of a lost ideal. A lovely landscape—especially as seen from a height—suggests a paradise in which we can fly, free as a bird of the air, over valley and lake, over mountain and river—regions where the climate is always genial and the inhabitants always happy. Our æsthetic distance is ever full of the most beautiful bubbles, but contact with experience breaks them all.

Some seek the goal in one direction and some in another, but the remarkable fact is that the aspiration pervades all minds that are capable of having aspirations at all. The Evolutionist, as we have seen, regards the human race as advancing "from precedent to precedent" towards a goal where every prospect pleases, and not even man is vile. "The historical evolution of humanity," says Huxley, "is generally, and I venture to think not unreasonably, regarded as progress."*

Christianity, however, is the only thing that causes an *enthusiastic* looking forward to a perfect state. This Christian ideal springs partly from revelation, from the Promised Seed of Eden, and the millennial pictures of Isaiah. But while the Evolutionist looks for the consummation through the development of humanity as it is, no Christian who knows his Bible will look for the Millennium in the present dispensation. He looks for a new heaven and a new earth.

The whole of human life and conduct is coloured by this divided allegiance, which is doubtless but a fragment of some greater truth. Such as it is, meanwhile, it may suggest to some that the "feeble myth" of Genesis throws more light on human psychology than the authors of the *Descent of Man*, the *First Principles* or the *Riddle of the Universe* would have us believe. There are many chasms between humanity and the evolutionary goal. All of these chasms may be bridged over but one. But as long as one remains to be bridged, the goal is as far from being reached as ever. And how is the psychological chasm to be bridged? The universal worship of the past as containing a lost ideal and the perpetual struggle to recover that ideal seems to constitute a *primitive instinct* in human

* *Naturalism and Supernaturalism.*

nature. A primitive instinct, if it is not already there, cannot be imparted; and, if it is there, cannot be extinguished. Here, then, is a gulf over which I can see no bridge.

For these reasons I am of opinion that, whatever biology may have to say for the progressive Evolution of man's physical structure, his psychological instincts, as well as his experience, belie the claim for his moral nature, and therefore, as far as life is concerned, belie it altogether; and that, while the Darwinian hypothesis finds no confirmation in man's mental constitution, the story of Genesis strikes a chord which beats in harmony with the human heart and with human experience, and confirms the motto of the Oberlin University, "Inspiration is better than Information."

Discussion.

Dr. Thirtle, who presided, in moving a vote of thanks to the lecturer, declared the paper to be profoundly humiliating in many of its implicates. He was sure that the audience would agree that Mr. Forbes had not only read widely on the subject, but had likewise embodied observations pointing to conclusions of deep and very practical interest. Quite evidently many of the inventions of science make for alienation from God, and it would also appear that in some cases they threaten undoing for the human race.

Proceeding, the Chairman found satisfaction in the fact that the lessons indicated by the lecturer are to-day being learned, not only in our own land, but also in others. Convincing as he deemed the arguments of the lecturer to be, he followed him in the judgment that in God's own time evil will be restrained, and the vexing problems of the hour will find their solution by a Divine intervention; for it could not but be that the Author of Creation and Redemption will, before angels and men, vindicate His own honour and make clear beyond question the wisdom that lies behind all His works—in their origin, their continuance, and their appointed end.

The resolution of thanks was carried with acclamation.

Mr. W. E. Leslie said: May I suggest that no attempt to discuss from the standpoint of "common sense" a theory which is (at least professedly) based on scientific and philosophic arguments is likely to lead to any useful conclusions.

The inadequacy of the "common-sense" method is implied in

the author's first paragraph, when he urges that a certain conclusion is *scientifically* and necessarily true.

No doubt the author can deflect the darts of any scientific adversaries from the numerous gaps in his armour by exclaiming that he does not profess to any scientific accuracy of fact or inference, but what useful purpose is served thereby ?

Turning to the body of the paper, several queries suggest themselves :—

(1) Why, when professing to discuss progress under the three separate aspects, Physical, Intellectual and Moral, has the author, nevertheless, introduced the moral aspect into all three departments ?

(2) How can it be said that the bearing of psychology upon the evolutionary theory has been " entirely overlooked " when it occupies a distinct place in the theories of physiological psychologists and of the Freudians ?

(3) Why, in suggesting an explanation of the values attached to certain old objects, has he completely ignored the factors of rarity and association of ideas which entirely explain the value of most, if not all, of his examples ?

(4) Is not the alleged struggle to *regain* a *lost* ideal more commonly regarded by the participants as a struggle for an *unrealized* ideal ?

I do not wish to support the evolutionary hypothesis, but I do not like to see a good cause supported by inconclusive arguments.

Mr. WILLIAM C. EDWARDS said : It is on record that the great Pro-Consul, Warren Hastings, once said that after the conclusion of Burke's Impeachment Speech he almost felt himself a criminal.

To-night, after the conclusion of the lecture to which we have just listened, I felt like the Prophet Isaiah, " Woe is me, for I dwell in the midst of a people of unclean lips."

We are indeed a bad lot and, apart from Sovereign Grace and divine Mercy, our outlook is desperate.

Our friend's paper is rather pessimistic, but running through it there is a note of ultimate hope, and I might describe our lecturer as a futuristic optimist.

Now it is, in my humble opinion, very easy to bring a vast and imposing array of facts to prove or justify the pessimistic view of life and things as they are.

In these later days we feel acutely the truth of the prophecy "that evil men shall wax worse and worse."

It is equally possible to produce an immense number of facts to support the optimist and to think of the time when "the whole earth shall be full of the Knowledge of the Lord."

How can these antithetical position, theories, or frames of mind be harmonized ?

I believe that if evil were to have its way unchecked and unhindered the worst dreams of the most despairing pessimists would soon be realized and exceeded, but that it is checked and hindered by something that "makes for Righteousness."

The wrath of man HE makes to praise HIM and what cannot be thus overruled—the remainder—HE restrains.

Sin in the last analysis is mental, physical, and moral or spiritual suicide, *e.g.*, in the nature of things the visitation of the iniquities of the fathers unto the third and fourth generation works for the elimination of evil.

This is that Nemesis of sin that keeps "working out" the very existence of uprising evil and evil men and things and preserving the best.

How rarely do we see a wicked man or woman over 50 ?

How many bad men and women have we not seen die before they came of age ?

But when the best are taken away at the first Resurrection how rapidly—it may be in a few months—the wicked will gain the upper hand.

Then all the horrors of the reign of the man of Sin and the false prophet and the beast, foretold in the Apocalypse, will begin and culminate in the darkest picture that our eloquent lecturer or any one else can draw.

Our friend seems to me to have looked at things from the dark side, and dark indeed is the picture he draws, but not too dark or too hopeless apart from restraining Grace and Mercy.

We ought not to forget that outbursts of great wickedness do often produce great reactions.

The stage may sink so low that "common decency" is outraged, and perforce it must try to reform or close down.

The pen of the novelists may degrade literature (if such it can be called) and horrify even debauchees.

These reactions, history shows us, often prepare the way for revivals of true religion, so that when men like Bishop Butler sink almost into despair and pessimism, let us remember that at that dark and awful moment in our country's history God was preparing for and actually beginning the great revival of Whitfield and Wesley.

I despair of things as they are—of our race as it is—but I know that there is an election of Grace which is calling out a people, and that God will one day make ready for that people a new Heaven and a new Earth, so that I am at once both a pessimist and an optimist.

Mr. THEODORE ROBERTS thought the lecturer had done well to confine himself to his own subject—history, particularly—as it was one in which his audience could better follow him than if he had dealt with the more technical sciences. He instanced as showing the progress of moral degeneration the three national revolutions of modern times which had involved the violent death of the monarch. Our Charles I was solemnly tried and sentenced by men whom he would have executed if he had defeated them, whereas the death of Louis XVI of France was voted by a passionate political assembly, and the Tsar Nicholas II was assassinated by order of the supreme Government without any trial at all. The treatment of the children of these three monarchs showed the same course of degeneration, for Charles' children were supplied with money and sent out of the country with due safeguard, whereas all would remember the cruel treatment meted out to Louis' young son, resulting in his death, and the Tsar's children were assassinated with himself.

The immense improvement resulting from the coming of Christ must not be overlooked. At that very time Augustus Cæsar, after crushing the insurrection of the slaves in Italy, returned thirty thousand captives to their masters, all to be crucified, involving an amount of human suffering almost incredible, and absolutely impossible in later times.

He regarded the Cross as the crisis in human history. There the full evil of man's heart was displayed, for then only was it tested by perfect goodness. All that Scripture says is that particular persons—"evil men and impostors shall wax worse and worse" (2 Tim. iii, 13).

He avowed himself a convinced optimist, and was glad that both the chairman and the lecturer looked forward to the personal reign of Christ, though we have the Dean of that highly dangerous structure,

St. Paul's Cathedral, in the current *Edinburgh Review*, saying that "Millenarianism . . . in its original shape of a belief in the approaching end of the world is quite dead, except among persons of very low intellectual cultivation"; but we had greater intellects than the Dean on our side, and best of all the testimony of Holy Writ.

He considered that in Christianity we had "heredity" in individuals being born of Christ by the Spirit, and "environment" in being baptized by that Spirit into one body, the Christian Church.

Rev. J. J. B. COLES said: The "psychological chasm" can be bridged by those who believe that the Creator was pleased to use *both* evolutionary *and* special creative methods—as set forth in Genesis i and ii. These chapters ought not to be amalgamated; they referred to distinct processes of indirect and direct Divine creative action.

Did Cain marry his sister? Holy Scripture does not say so, nor does it state that there was only one pair of human beings in Genesis i. If we keep closely to the living oracles of God, and neither add to them nor take away from them, we shall not be perplexed by theories as to prehistoric man nor by other questions of origins.

Lieut.-Colonel G. MACKINLAY said: Mr. Avary Forbes appeals, I think with success, to the very widely implanted seeking for a lost ideal (p. 71)—for something better than that which is to be seen at the present time, and to the implications which arise; they certainly agree better with the Bible narrative of the creation of man, rather than the theory that he is descended from lower forms of life.

Dr. A. T. SCHOFIELD writes: Being unavoidably absent on Monday, I send you one or two remarks on Mr. Forbes's paper. With its general tenor I agree, although the conclusion that inspiration is better than information strikes me rather as one of those comparisons which have been described as "odious." True information is of great value. Page 65 contains a serious discrepancy. The query (1) Has the race progressed physically? is not answered at all. What follows does not attempt to give the physical increase in stature, weight, length of life, progress in athletics, etc., but

very curiously seems to consider telephones, microphones, aeroplanes, radium, wireless, etc., as related to the question; and lower down speaks of these as mere *mechanics*, which certainly they are not. On p. 66 Mr. Forbes points out that the tree gives the knowledge of "good" as well as "evil," but fortunately draws no conclusion from this remarkable fact. Of course, conscience awake necessarily reveals the two. But when he proceeds to assert that chemistry is a big branch of this remarkable tree, we must demur.

I fear his comparisons on p. 67 hardly hold water. The Bible set are given us as truths, the others are mythological fables and allegories, and the two must not be contrasted as if the latter are now believed as true.

The AUTHOR'S reply: Mr. Leslie has misunderstood me. I know that evolutionists have treated of psychology, and that very largely. In my opening paragraph I said that "libraries of learning have been written on the subject," *i.e.*, Heredity, in which psychology bulks very largely. My point was that *one great fact* of psychology—worship of the past, and seeking there a lost ideal—had been overlooked by the philosophers. Mr. Leslie likewise falls into the error (against which I protested,—p. 77) of limiting the word science to *physical* science; whereas mental science is equally—or rather more, important. In mental science the highest appeal *is* to common sense. Both Berkeley and his critics, when in controversy over Idealism, continually appeal to the "plain man," or—as we now call him—the "man in the street." And the reason is obvious. The physical scientist must have a well-equipped laboratory and extensive technical knowledge; while the mental scientist has the complete apparatus and knowledge provided for him by nature.

How was it possible to omit the moral aspect, when I distinctly stated (what, as far as I know, nobody has denied) that, unless there has been moral progress, there has been "no progress at all" (p. 69)?

As to "rarity," it is in itself no factor of value at all. I have books in my library, which, I am confident, are not now to be bought in any shop. But their value is that of waste paper. Mr. Leslie is quite right as to association of ideas. We are surrounded by rocks

as old as the time of Abraham; yet, if there be no human associations connected with them, they are, of course, of no special value. But I gave my hearers credit for supplying that elementary consideration, and also for understanding that such associations are necessarily of the past. They point to an ideal, not only unrealized, but unrealizable.

If the words "the race" (p. 65) be replaced by "civilization" (as I agree they might be), Dr. Schofield's "serious discrepancy" disappears.

The learned doctor, however, has confounded two things which are entirely different, viz., the development of the individual and the progress of the race. Into the former subject (Biology), I declined to enquire; and the whole of Section A (1) plainly shows that I was dealing with *civilization* on its physical side.

While thanking the other speakers, I should like to explain that it was no part of my purpose to establish either pessimism or optimism, and I am sorry that that will-o'-the-wisp was followed or started at all. My purpose was to show that Darwinism and human psychology are at variance; that, while Darwinism presupposes that human nature never had an ideal state, but must look forward to attaining one in the future, human nature feels that it had, and therefore looks back to, and idolizes, the past: that these two attitudes *contradict* each other, and that, therefore, by the laws of logic, one of them must be false. Further, that the first is a *theory*, and the other a *fact*; that, as the fact cannot be false, the theory must be. That is the "dilemma" I sought to establish.

673RD ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, FEBRUARY 23RD, 1925, AT 4.30 P.M.

PROFESSOR T. G. PINCHES, LL.D., M.R.A.S., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed.

The CHAIRMAN announced that, owing to the regrettable absence of the author in America, the Hon. Secretary would read the paper by Professor Albert T. Clay, Ph.D., Litt.D., LL.D., on "The Early Civilization of Amurru—the Land of the Amorites—showing Amorite Influence on Biblical Literature."

THE EARLY CIVILIZATION OF AMURRU—THE LAND OF THE AMORITES—SHOWING AMORITE INFLUENCE ON BIBLICAL LITERATURE.

By PROFESSOR ALBERT T. CLAY, Ph.D., Litt.D., LL.D.

SYRIA, which name was introduced by the Greeks, and is thought originally to have been Assyria, extends from the Taurus range and its offshoot called the Amanus about 380 miles to the Egyptian frontier; and from the Mediterranean eastward sixty or more miles to the middle course of the Euphrates, and, farther south, one hundred miles more or less to the desert. These are the modern boundaries of Syria.

Mesopotamia is that irregular oval south of the mountains of Armenia, at present called by the Arabs the Jezireh, "Island," for it is nearly surrounded by the upper Euphrates and Tigris. It extends south to a point below Hit, where alluvial Babylonia begins. It does not, however, include the eastern part of this great oval, which was ancient Assyria, for this territory, together with the Babylonian alluvium, is now called Iraq. During the war, Iraq was incorrectly included in Mesopotamia.

Several very early names are known for parts of Syria and Mesopotamia, as Tidnum for the Lebanon region, Halma for the

district of Aleppo, Mari for the middle Euphrates district, etc. But the entire land west of Babylonia and Assyria, extending to the Mediterranean, was best known in ancient periods as Amurru, the land of the Amorites, though at times the boundaries of Amurru were contracted to a small portion of this vast territory; and even in Biblical literature, the land of the Amorî, "the Amorite," ceased to have a definite geographical significance. In short, Amurru is in no sense an ethnic term,* but can only be regarded as a geographical name which these lands received at some time in their history when one of their many city kingdoms held the suzerainty over the entire land; just as Babel (Babylonia) and Asshur (Assyria) are names of lands, but were originally names of the cities Babel (Babylon) and Asshur. Amurru received its name from the city Mari, also called Maeri, Marru, Merra, etc., which was connected with the fuller form Amurru, the same as Moriah of the Hebrew and Amoriah of the Septuagint are connected.† The entire country may have received this name when the empire Amurru held sway over Babylonia, before the time of Sargon and Naram-Sin.

In the reconstruction of the ancient history of Amurru, a knowledge of the physical geography of the land is necessary; for in it one finds every range of climate from the snow-capped mountains to the plain, and even the sub-tropical valley. The cedar, oak, pine, and cypress are seen on the mountains, and the olive, fig, date, orange, and pistachio in the plain; rich pasture lands spread out over the steppe, and a bountiful fertility is found in the valley. The land supported the mountaineer, the miner, the farmer, the sailor, the shepherd, the merchant, etc.

The land is literally covered with thousands of tells, or ruin hills, representing the remains of bygone civilizations. Amurru with its wonderful natural products and pasture lands must have been settled by man before any other land in the Near East. Knowing such sites for cities as the land contains, where nature has not only furnished abundance of water and bountiful fertility, but a living for man for the gathering; and being familiar with such sites as Damascus, Aleppo, and many, many others, who, after doing a little thinking for himself, will let his horizon be

---

* Clay, *Empire of the Amorites* 58 ff.

† Clay, *ibidem*, 66 ff.; *J.A.O.S.*, XLI, p. 257; *Antiquity of the Amorites*. See also Langdon, *Babyloniaca*, VI, p. 55, Albright, *A.J.S.L.*, XLI, p. 49.

shortened to such an extent that he will continue to popularize the theory that this country received its Semitic inhabitants from the Arabian desert in the third millennium B.C. ? True, history tells us that there had been an influx of Arabs into this country, as there is at present; but history also tells us that many other foreign peoples flowed into these lands in great numbers in all periods. The percolation of Arabs has unquestionably contributed in the development of this highly mongrel people; but this land was settled in such a hoary antiquity by civilized man, who, we have reasons to believe, spoke a Semitic language in a very early period, that it were folly to account for its inhabitants by bringing them out of the desert in a comparatively late period.

Man made his appearance in Syria at a very early time, as is proved by the rudely chipped instruments which are found in various parts of the land, belonging to the palæolithic stage of culture, various types of which are the Chellean, and the late subdivision Acheulean.* As yet, perhaps owing largely to the comparatively little work done by the archæologist in the cave area of the land, there are no proofs that stone age man had arrived at a development as high as that of his contemporary in southern France.

It was discovered in the excavations at Gezer in southern Palestine that the site was originally occupied by a people short in stature, with thick skulls, and on the whole of a low type. The rocky heart of the mount, or its lowest stratum, was found full of caves, partially natural, and partially artificial. Macalister, who excavated the site, has given us considerable data on its primitive inhabitants.† Whether they were one of the ethnic groups whose names are preserved in the Old Testament as the Emim, Zuzim, Zamzummim, Rephaim, Horites, etc., is not known; it, however, can be said that they were not the Nephalîm, "giants." The early inhabitants, he tells us, were superseded by a Semitic people about 2500 B.C., and although an advance in civilization upon what had preceded was clearly observable, they also did not live in a very progressive manner, although influenced by their neighbours the Egyptians. I doubt, however, if it can be proved that they were a Semitic people.

---

* Macalister, *History of Civilization in Palestine*, p. 9.
† Macalister, *Excavations of Gezer*, 58 ff.

It is true that the excavations have shown that in southern Syria the cave dweller, even centuries after his neighbour the Egyptian had been using copper, was living in a very primitive and undeveloped state, and without the use of metal. But this unquestionably was due to the fact that the land was divided into isolated districts because of its geographic configuration, and that petty groups could live in limestone caves, which abound in the land, entirely unmolested, while the near neighbour was living on a much higher plane. We must remember that people living also in Babylonia amidst its highly developed civilization imported not only metal but flint instruments, which are found on the surface of many sites, doubtless because they were cheaper. These we find were used even up to a comparatively late period in Babylonian history. An archæologist informs me that he knew a man living in modern Egypt up to within a few years ago, who continued to use flint instruments to the time of his death.

Excavations have been conducted at other ancient sites in Palestine, such as Megiddo, Tacanach, and Beisan, but as yet they have not been carried down to virgin soil; and in consequence, we are still in the dark as regards the earliest civilization of southern Syria. Excavations are now being conducted in northern Syria, at Byblos; but although epoch-making results have been obtained, showing Egyptian occupation as early as the second dynasty, here also we must await the examination of the lowest strata.

The theory that Arabs first spilled over from the desert into Syria about 2500 B.C., and furnished it with its first Semites, which theory has been popularized in hundreds of books, has been largely based on the results obtained at Gezer. Because of what follows this can no longer be maintained.

Amurru, owing to its central position among other peoples, and its great resources and fertility, had been invaded hundreds of times, and occupied by many different races. Practically the only data concerning the physical character of its inhabitants are from the Gezer excavations, and from pictures on the monuments. On the basis of the Egyptian portraits of Syrians, some hold they were Indo-European; while others simply declare the type to be Armenoid, and to be represented by people living in the Lebanons at present. Among the inhabitants of Syria of to-day, not a few different types are recognized, but they are pre-eminently Armenoid. However, any one familiar with the

present inhabitant recognizes a prominent and distinct type that is called Syrian. And the so-called Jewish type can generally be distinguished from the Syrian, although it belongs also to the Armenoid group.

Macalister informs us that the Gezer excavations show that the so-called troglodyte or cave dweller was dolichocephalic; and the so-called Semitic inhabitant was largely mesocephalic, while a few were long-headed like the pre-Semitic inhabitants.* He says the earliest Semitic inhabitants were indistinguishable from the later, and that they closely resemble the modern fellahîn of the vicinity. It seems to me that the data furnished by these explorations reveal nothing to prove that the inhabitants of Gezer were Semites. Assuming that Labaya and Yapakhi of the Amarna letters bore Semitic names, this is the earliest Semitic thing known about Gezer.

Of the physical characteristics of the ancient dweller in the Arabian peninsula we are profoundly ignorant. Anthropologists, however, find two distinct races living at present in Arabia; one, the Bedouin or desert Arab, and the other found in the southern fringe of the great peninsula, extending around also to the western shore.

A number of travellers in this southern fringe of the land, where "frankincense and gold" (Isa. lx, 6) were found, have furnished us light on the rich culture of its ancient civilized kingdoms, from about 1000 B.C., but, as stated, nothing is known concerning the ancient inhabitant. The physical anthropologist tells us that the modern dweller in these parts has genetic relationship with the great branch of Armenoid peoples of Mesopotamia and Asia Minor.† We can fully understand this when we consider that the sea easily connects these two sections of the Near East. Moreover, archæological research confirms this conclusion, for Amorite cultural influences are found to have been exerted on these rich lands in southern Arabia as early as 1000 B.C.

As already mentioned, nothing is known of the ancient Bedouin of Arabia proper, but the anthropologist tells us that the modern Bedouin Arab is long-headed, and racially different from the resident of southern Arabia and the Armenoid peoples

---

* *Excavation of Gezer*, 58 ff.

† Seligman, "The Physical Characters of the Arabs," *Journal of the Royal Anthropological Institute*, XLVII, 217 ff.

of Mesopotamia and Asia Minor.* This fact presents an unsurmountable difficulty for those who hold the theory that the Amorite peoples and their culture had their origin in the Arabian desert.

Archæology and anthropology have therefore taught us that dolichocephalic man lived in the Arabian desert, in Africa, and in Egypt prior to the period of historic man, as well as in the caves of Gezer. And we know that he has filtered into Syria and Mesopotamia, as he is doing to-day. Archæology and anthropology have also taught us that historic man, who developed civilization in Egypt, Syria, Mesopotamia, and southern Arabia, was Homo Alpinus or Armenoid man, who had genetic relationship with European man.

There are not a few scholars, including Jewish, who have accepted the idea that the Bedouin is racially the brother of the Jew. But how anyone, knowing the physical characteristics of the Arab, even as a layman, and without the above decision of the anthropologist, can believe that the long-headed, oval-faced Bedouin is racially the brother of the Jew, with his round head, short stature, and Armenoid features, is more than I can understand. And the same applies also to the type referred to above as being typically Syrian.

The term Shemitic (Semitic) has been used for more than a century for the closely related languages known as Hebrew, Aramaic, Assyro-Babylonian, Arabic, and Ethiopic, but this designation can not refer to the races of the peoples using these languages any more than the term English can be applied to the races speaking, or trying to speak, the English language in New York City of to-day. In the light of these facts, what becomes of the extensively popularized theory that the Hebrews represent one of the " wild hordes from the Arabian wilderness " who entered Palestine under Joshua, whence began Hebrew history ? The ultimate origin of the Hebrews, as well as of other civilized peoples within Amurru, who happened to speak Semitic languages, can at present be determined about as easily as the question as to who was the wife of Cain. And the same is true of the origin of the languages we call Semitic, for although the Bedouin, due to his isolated life in the desert, has preserved a pristine purity in his language unknown among other Semitic

* Seligman, *ibidem*

languages, this is no proof that the original Semitic language was first spoken in the Arabian desert.

We, however, need no longer to depend upon inference or reasoning to support the view that Semitic Amurru had a civilization as early as Babylonia or Egypt. Archæology has determined this to be fact. Inscriptions from these lands show that a Semitic culture not only existed in Amurru in the earliest historic age, but that the cultures of Babylonian and Egypt were influenced by it. But more than this ; we now know that Amorities ruled Babylonia in a very early period—yes, there are reasons for believing that the Amorities had arrived at a fair stage of culture in their land of wonderful fertility and resources, before they had acquired sufficient engineering skill to harness the Euphrates and the Tigris, and occupy the alluvium.*

The question as to whether these Amorites possessed religious or other traditions is naturally of interest to all students of the past. Certainly if the worship of Amorite deities was carried into Babylonia (see below), we have reasons to believe that their cults went with them. For our purpose here, however, let us inquire into the possible status of Amorite literature at a comparatively late date, say in the latter half of the third millennium B.C., when great temple libraries flourished in different cult centres of Babylonia.

As far as we know at the present time, the era of the Nîsin-Larsa-Babylon dynasties is the greatest literary age known in Babylonian history. In preceding eras we find evidence of a high culture in the art, in the great masses of administrative records, in the building inscriptions, votive tablets, etc., but little has been found thus far of literary effort in comparison with that of this era. According to our present knowledge, all the temple school libraries discovered in Babylonia belong to this time. It is interesting to note here that it is now admitted by scholars that the country during this literary era was ruled by the Amorites. But more important than this, we know that the country was literally flooded with this people, as is shown by the thousands of names gathered from business contracts.

As is well known, cultures in this era were not peculiar to Babylonia and Egypt, for civilization in Crete already had a long antiquity, and we know that in Asia Minor what we call the Assyrian language and script were used in writing letters and

* Clay, *Empire of the Amorites*, 76 ff. ; *J.A.O.S.*, XLI, 241 ff.

business transactions.* In other words, we know that at this time on all sides of Amurru, nations possessed cultures of a high order. And although excavations in Amurru have practically only been begun, and although as yet we have not obtained any evidence of the work of the scribes belonging to this period, we have reasons for believing that the Amorites also had their literature. As we shall see, it is highly probable that many Semitic traditions were introduced into Babylonia at this time.

In recent years, the Pan-Sumerist has been crediting the Sumerians with having originated practically every semblance of things cultural for the Semitic Babylonians. True, we know that the Sumerians influenced Assyria, and perhaps ruled it prior to the Semites in the third millennium B.C., and that they also probably did the same in Amurru in an early period, for we find an inscription of an early Amorite king at Mari written in Sumerian, and also names of temples in Aleppo, Haran, Qarqar, etc., written in Sumerian signs; but these facts do not prove that peoples who spoke Semitic languages did not then and previously occupy these lands.

All inscriptions found at Nippur of this age are written in the Sumerian language, but that is because that language was the written language of the city. For while as far as I know, nothing at Nippur during this era was written in Semitic, the names of the majority of the people were Semitic. Kings bearing Semitic names are among the earliest known in Babylonia.† If the full story is ever known, I believe it will be found that kings bearing Semitic names ruled Amurru before the alluvium was settled.‡ Moreover, we know that many of the names written with Sumerian signs represent Semitic names. We also know that at least some of the literature handed down in Sumerian garb was in origin Semitic.

In the code of Hammurabi, who is now recognized as an Amorite, there are two passages which doubtless throw light on the subject. In one, Hammurabi says: "When Marduk sent me to rule the people, and to bring help to the country, I established law and justice in the language of the land, and promoted the welfare of the people." Like all other law codes, his was

---

* *Empire*, 131 ff.
† *Empire*, 76 ff.
‡ *J.A.O.S.*, XII, 241 ff.

based on what preceded. In another passage, he tells us he is the one "who put into execution the laws of Aleppo." As everyone knows, Aleppo is in northern Syria.

After the discovery of the Hammurabi Code, it was observed that Abraham's conduct in regard to his treatment of Hagar and his adoption of his steward Eleazar, which are not covered by the Mosaic Code, are in accord with the Code of Hammurabi. If the body of laws in the latter emanated from Aleppo, we can better understand the conduct of Abraham, for his ancestral home lies immediately west of that city.

In the Yale Babylonian Collection there is a tablet containing laws belonging to an earlier code, written in the Sumerian language; this, without any doubt, is a prototype of the Hammurabi Code. Its colophon tells us that it contains the laws of Nisaba and Khani, two Amorite deities.* It is because of these facts that I think we are not only justified in maintaining that codes of laws existed at this time in the West at such important centres as Aleppo, which we have reasons for believing flourished many centuries before the time of Abraham, but that the Amorites who flooded Babylonia prior to his day, carried them into Shinar. This being true, it is reasonable to maintain that the story of Abraham is not a fiction of the days of the Yahwist writer of the ninth century B.C., but is a tradition that has been handed down from an early period. There are other remnants of Amorite literature that have been handed down by the Hebrews, Babylonians, and Greeks.

It is generally recognized that the part of the Pentateuch known as the Yahwist narrative was written in the ninth century B.C., what is called the Elohist in the eighth, and the Priestly in the fifth century. This is the generally accepted view of scholars; but it should be added that there are those who have held that these are compilations which used versions and materials that belonged to a hoary past; and this is unquestionably correct. In showing the antiquity of Amorite or Hebrew literature, we need no other proof than finding such ideas expressed in Genesis as God and man walking together and holding intercourse, animals being endowed with the power of speech, God playing a visible part in the affairs of the world, making coats of skins to replace the fig-leaf aprons of our first parents, shutting the door of the ark, smelling the sweet odour

* Clay, *Miscellaneous Inscriptions*, 18 ff.

of the sacrifice, or coming down to view the Tower of Babel. These *naïvetés* certainly show that they are products of the human mind in an archaic simplicity, not of the age of Solomon; when the world came to hear his wisdom, and when the prophets had reached a plane in religion without parallel, as far as we know, up to this time. In short, this material unquestionably had been handed down from a very primitive era when human intelligence had not reached a very high stage. It is almost too preposterous for belief that scholars can convince themselves that certain parts of this material were produced when Israel was at the height of its success and prosperity as a nation, and that other parts had been obtained from the Babylonians during the exile, following the time of an Isaiah, or while other great prophets still lived.

Scholars in past decades have extensively popularized in hundreds of publications the idea that the religious traditions and culture of the Hebrews were borrowed from the Babylonians. This, I maintain, must be completely abandoned, as all the many discoveries of the past few years bearing on the subject clearly show that Israel's culture is not Babylonian in origin, but is a development from what had been handed down by Israel's predecessors. This, unbiassed critics must admit, is the natural order of affairs.

As is generally recognized, there are two creation stories in Genesis, the second beginning in the fourth verse of the second chapter, and also there are many passages in the poetical books of the Old Testament which reflect Israel's conception of the creation, showing it was their belief that Yahweh had a great conflict with the primeval being, Tehom ("the Deep"), also called Rahab, Leviathan, the Dragon, and the Serpent, after whose defeat the heavens and the earth were created. In spite of all the claims of Pan-Babylonists, this story as preserved in the Biblical version and in the Greek, contains absolutely nothing that is Babylonian. There is not a semblance of an idea that can be proved as such. This refers to the colouring of the narrative, the names, foreign words—in fact, everything.

Another well-known tradition that has been handed down by the Hebrew branch of the Amorites is that of the deluge. For a long time scholars have recognized two distinct versions of the flood in the Old Testament, which in details are repetitious and diversified. In Babylonian cuneiform, we also have several different versions of this same flood tradition, and there is an

epitome of one found at Nippur that was translated into Sumerian, due to the fact that this was the written language of the city at this time. Scholars agree that all of the versions go back to a common source.

One of the cuneiform versions, which mentions that it is a copy of a still earlier version, is dated in the eleventh year of Ammi-zaduga, king of Babylonia (about 1966 B.C.). This version I have shown contains many Hebrew words, and is a cuneiform version of an earlier Amorite or Hebrew version. This implies naturally that the tradition belongs to a time prior to that of Hammurabi or Abraham, which, of course, puts an end to the fruitless strife as to whether Moses first wrote the story, or whether it was produced by some Jewish writer, many centuries after the time of Moses.

In two works recently published entitled *A Hebrew Deluge Story in Cuneiform* and *The Origin of Biblical Traditions*,* I feel that I have conclusively shown that the creation and deluge stories as handed down by the Babylonians and Assyrians are versions of stories that have been brought by the Amorites from the West. This conclusion is based on serious studies of all the versions of these traditions during the past two decades. All references to climate in the different versions, the names of deities and persons found in them, as well as the linguistic characteristics of the versions, show that they go back to an Amorite origin. This conclusion has been reached after every shred of evidence that research has produced as having a bearing on the subject has been carefully weighed. Moreover, this conclusion need not surprise us in view of our knowledge of migrations between Amurru and Babylonia, and the fact that all, with the exception of the return of the Hebrews to their Zion in Palestine, were from Amurru down the Euphrates into that wonderful fertile alluvium, the Plain of Shinar, later called Babylonia, and not *vice versa*, for we know that religious traditions migrate with people.

Those who are obsessed with the idea that the early Amorites did not have a civilization and culture of their own, find no difficulty in believing that the names of the so-called Hebrew patriarchs before and after the flood, were obtained by translating or transforming the names of early Babylonian kings into

* Published by the Yale University Press and the Oxford University Press, 1922-3.

Hebrew. In hundreds of different works on the subject you will find it stated that the name of the second known pre-diluvian king of Babylonia, Alaparos, became Adam: that Amillaros, or Amelon, the third, became Enosh; that Amemnon, the fourth, became Cain, etc. It is even believed that the first and last consonants of the name of a king of Kish, [Me]-lam-K[ish] have been lost, whence the name Biblical Lamech. I have maintained that these philological gymnastics are a *reductio ad absurdum*, and that the names found in the Hebrew lists are quite independent of those found in the Babylonian lists.* I believe as investigations proceed, we shall find that the names of the pre-diluvians in the Hebrew will be identified with Syria and Mesopotamia, just as the three patriarchal names preceding Abraham, namely Nahor, Serug, and Terah, are now known to be the names of cities in the traditional home of the Hebrews about Haran in Aram.

Besides the Biblical outline histories of the world, there have already been recovered several from Babylonian libraries, which were written in the literary age already referred to, at the time of the Nîsin-Larsa-Babylon dynasties, or shortly before Abraham lived. The number of patriarchs in the outline history preserved in Genesis is small in comparison with the number of kings in the Babylonian; and the Biblical outline itself is exceedingly brief in comparison with the history of Babylonia as already reconstructed from the monuments.

There can be no question but that the compiler of the Hebrew outline, in order to give a brief history from the Creation to Abraham, made use of only a few extracts from the traditions that had been handed down by the Amorites. And there are reasons for believing that the remnants used belonged to more than one such ancient outline, just as the story of the Creation and the deluge are also taken from more than one version, as the critical study of Genesis has definitely proved.

There is nothing in the Genesis outline that can be shown to be of Babylonian origin; and, on the other hand, the cuneiform stories are full of elements that are distinctly Amorite. Even the reference to Nimrod, the mighty hunter or ensnarer, was very probably a reference to one who was identified as a great hero of the West, probably representing one of those periods

---

* *The Origin of Biblical Traditions*, pp. 127 ff.

when Amurru figured in Babylonia. The story of Babel, although it makes use of a Babylonian conception of their temple towers, was written, not by a Babylonian, but by an Amorite, perhaps being an echo of the tradition that people from Amurru journeyed eastward into the great alluvium, as well as making use of the fact that in Babylon, as in Bagdad at present, many languages were spoken, in accounting for the many different tongues and peoples of the earth.*

It is now acknowledged by Egyptologists that Egyptian religious thought was influenced at an early time by that of Syria and Mesopotamia. Not only do we know that the religion of many Amorite deities migrated to Egypt, but it is now understood that among the literary influences upon Egypt the Amorite creation story, or the conflict between the god of Light and the primeval monster of the abyss, gave rise to the story of the gigantic Apop, the enemy of the sun-god, and that this thought reached Egypt after 2500 B.C.† It is highly probable that it was in the same general era when Amorites flooded Babylonia that this story, as well as that of the deluge, were also carried into that land.

With such data in our possession, even though we must depend for the present upon Babylonian and Egyptian light on the subject, we have reasons to believe that at the time when Amorites developed great temple libraries in Babylonia such existed also in Amurru ; and that when excavations are conducted at such places as Aleppo, Haran, Mari, etc., we shall find traces of the early literature of the Amorites, which, unfortunately, is now lost, except as preserved in the Old Testament, or reflected in the literary remains of contemporary peoples who were influenced by them.

The cuneiform literature has revealed thousands of names and epithets of deities worshipped in Babylonia. Likewise the literature of the West—that of the Old Testament, the Amarna letters, and tablets found in Palestine, as well as other inscriptions found in Syria and elsewhere—has furnished us with hundreds of names and epithets of the deities of Amurru, most of whom are recognized as belonging to a people who used a Semitic language.

---

* *Origin of Biblical Traditions*, pp. 189 ff.

† *Empire of the Amorites*, p. 139, and *Origin of Biblical Traditions*, p. 40.

The foremost deity of the western land seems to have been El, which was one of the names of Israel's God. He was called *El-elyon*, "The most high El," *El-shaddai*, "Almighty El." In time the name El became the generic term for deity; yet it continued to appear as the name of one of the foremost West-Semitic gods even in the inscriptions of the first millennium B.C. Phœnician traditions connect El as well as Elohim with the city Byblos. The tradition of Sanchoniathon tells us that El "surrounded his habitation with a wall and founded Byblos, the first city of Phœnicia"; and that "after his death he was deified, and was instated in the planet which bears his name"; further, that "the auxiliaries of El, who is Kronos, were called Elohim, as it were, the allies of Kronos, being so called after Kronos."

Another great name of a West-Semitic deity is Yah. This early name of Israel's deity, and the fuller form Yahweh, as well as Yahw, or Yahwe, of the Elephantine papyri, are unquestionably different forms of the same name. Certainly, the Hebrews looked upon Yah, Yahweh, as well as Yahw, as representing the name of their deity. This has its parallel in the West in the variant name forms of other deities, as, for example, Ashirta, Ashtar, Attar, etc. And it is highly probable that the pronunciation of Yah, Yahw, and Yahweh is represented by the cuneiform Ya, Yau, and Yâwa.* It is due to the lack of excavations that the only early occurrences of the name in the inscriptions belonging to the West outside of the Old Testament is in Akhi-Yâwi and Yâwi-banda of the Tacanach tablets.

A third prominent deity of the Amorites, but one who was not worshipped by the Hebrews, was the weather god Hadad. Perhaps the earliest centre of his worship in the West was at Qarqar, near Aleppo, mentioned in the Code of Hammurabi. There were other very important Amorite gods, as Amurru or Uru, Ashirta, Sin, Shamash, Nebo, Dagon, etc.

Religion, as we have already stated, naturally migrates with a people. In consequence, wherever Amorites migrated the worship of their deities is found; and the worship of all these gods has been found in Babylonia. We know also that other gods—as Ba'alat, Sutekh, Resheph, Kadesh, 'Anat, etc.—were carried to Egypt; and others—as El, Shamash, Sin, Ramman, Ammi, etc.—were carried to Arabia.

---

* Clay, *Amurru, the Home of the Northern Semites*, pp. 202 ff.

At Eridu, perhaps the first city established in alluvial Babylonia, the name of the patron deity was Ea. The name was written ideographically En-Ki, meaning "Lord of the earth," and also E-A, probably because these two signs approached the pronunciation of the name, and because in Eridu, then on the seashore, this god of the springs of the earth became the god of the deep, for the two signs mean "House of water." It was suggested long ago that Ea and Yah were the same deity. The form of Yah, being composed only of weak consonants, does not offer conclusive proof of this, but as investigations progress, because of many considerations, it becomes more and more reasonable to believe that this identification is correct.

At Erech, the patron deity was El. In using the Sumerian script, his name was written by scribes with the cuneiform sign AN, which has such values as "heaven" and "deity." In time, An came to be pronounced even by the Semites. Worshippers of El also settled farther north, where they called their city Bab-El (Babylon), meaning "Gate of El," and others on the Diyala River, who named their place Dur-El (Der), "Fortress of El." In Babylonia El or Anu was the foremost deity.

Hadad, the storm-god, I believe, was the original name of the deity of Nippur, in which city the scribes, using Sumerian script, wrote the name with two cuneiform signs En-Lil, meaning "Lord of the storm," and this also came to be pronounced Enlil and Ellil.

It is not impossible that the Sumerians who conquered Babylonia and gave it a script and other elements of a high culture themselves had deities named An, Enki, and Enlil, as Pan-Sumerists contend, and that these gods became syncretised with the Semitic deities already worshipped in the land, but I doubt it.

A name-dictionary or syllabary found at Nippur shows that prior to the time the triad An, Enlil, and Ea came to be generally recognized, these names and the order in which they appeared, were El, Ea and Adad (Hadad). In other words, after Hadad, the name of the storm-deity at Nippur, was written En-Lil, "Lord of the storm," and became the god *par excellence* of the land, he displaced Ea and occupied the second place in the triad.

As already mentioned, in Babylonia and Assyria, there has been found more than one version of the creation and deluge

stories. We ascertain that in the version belonging to one city, the priests of that cult-centre had made their own patron deity the hero of the story ; while in the version emanating from another city, we find that its patron deity had been made the hero. Scholars have shown that the god Marduk of Babylon, and Ashur of the city Ashur, have been made to supersede other deities, as Ea and El.* As investigations proceed, we will doubtless find that the same thing was done at other cult centres. This, it seems to me, without any other consideration, reflects the idea that these traditions were not indigenous in Babylonia. But what is more to the point here, if the above identification with Yah is correct, these two Amorite deities El and Ea in Babylonia are the same as figures in the traditions handed down by the Hebrews, namely, El and Yah.

In Amurru, for example, in one of the two versions of the deluge story, the name of the deity is Yah, and the other Elohim. Doubtless the story we know of as the Yahwist, is based on a version which belonged to an ancient seat of Yah or Yahweh worship. Knowledge of what occurred in Babylonia makes me feel that some day, among the prominent tells already known in Syria or Mesopotamia the site of this ancient city may be identified. The story in which Elohim is used as the name of the deity probably was based on the version that belonged to the cult at Byblos.

If inscriptions are ever obtained from ancient Qarqar, near Aleppo, which apparently was an important seat of Hadad worship, we shall doubtless find versions of these traditions in which that deity took a more prominent part than is recorded in the Babylonian versions now known.

It is my belief that Genesis contains references to many different fragments of Amorite literature, representing different traditions that were current among the civilized peoples in Amurru. Doubtless, a major part of the traditions in Genesis were current among the Aramaean people to which the Hebrews belonged. Yet who will dogmatize as regards the ultimate origin, at least of some of them ?

If what we have presented in the Old Testament has been transmitted largely by the descendants of Abraham, the nomadic life they led, in contrast with that of such settled communities

---

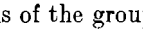
* *Origin of Biblical Traditions*, pp. 99 ff.

as at Haran and Aleppo, would account for some of the archaic and naive expressions found in their traditions, even after they settled in Palestine, for although religious thought had reached a height unknown in any other religion, they seem to have clung to this heritage; and when in the ninth century the redactor compiled what we know as the Yahwist narrative, he made use of these remnants in showing how, after God had created man, and had placed him in a garden, he fell, when evil prevailed, and how God was then making Himself known through the prophets, in calling man to turn from his unrighteousness.

Discussion.

Opening the discussion, the Chairman spoke of the importance of Professor Clay's paper, quite apart from any statements of a controversial nature which it might contain. Its main theme was that the Biblical accounts of the Creation and the Flood did not, as the pan-Babylonian scholars contend, originate in Babylonia, but in Palestine. The Chairman had noted down over thirty points suitable for discussion, but it was, naturally, impossible to deal with so many, so he would only refer to one point tending to confirm Professor Clay's theory, supplemented by the few notes which he had made when reading the paper at home. The notes tending to confirm the theory were derived from one of the lists of names of Babylonian gods, which were very numerous. He then continued:—

The list to which I refer has the names of two deities, *Šarrapu* and *Birdu*, which, according to the text, were derived from the language of *Mar*—that is, Amurrū, the land of the Amorites. These deities belonged to the Babylonian plain or steppe, called *edina*, and confirm the theory that the Paradise of our first parents, the Garden of Eden, was situated in Babylonia, on the shores of the Persian Gulf, which then extended much farther inland than at present. The Biblical account of the Creation and the Flood, though they may refer to Babylonia, originated, therefore, in the land of the Amorites. *Šarrapu*, "seraph," "the flaming one," therefore stood for the intense heat, and *Birdu*, Arabic, بَرْد, *bird*, "cold," for the great cold of the Babylonian plain, keeping the unauthorized away from the tree of life.

[Both these are indicated by means of the group 

the common renderings of which are D.P. *lama-êdina*, "the genius of the plain," or *eden*, and when represented as standing for one divine personage only, they seem to have been called *îlu kilallan*, "the twofold god," otherwise *îlan*, dual of *îlu*, *Maš-tabba*, and *Minabi*, "twins," and "double." *Šarrapu*, miswritten, apparently, *Karapu* (*Cuneiform Texts from Babylonian Tablets*, XXV, 37, 20), is explained as one of the names of *Lugal-girra*, and *Birdu* as *Mešlam-ta-êa*, "he who came forth from the *mesu*-fruit," both of them names of Nergal, god of disease and plague, in *Mar* (Amurru).]

Concerning the *navetés* of Genesis, I would rather not express an opinion. Such things are not impossible even with intelligent and learned men, especially in those distant ages, and surrounded by the unlearned and simple-minded.

There is no doubt that Israel's culture was not Babylonian. The descendants of Abraham naturally soon lost the little Babylonian culture they had on entering Palestine, and adopted that of their newly acquired neighbours. Their religion was, in all probability, that of their father Abraham.

Professor Clay is probably right in saying that Tehom, "the Deep," also called Rahab, Leviathan, the Dragon, and the Serpent, are more Israelitish than Babylonian. Nevertheless, Babylonian cognate terms like *Tiamtu*, "the sea," and "the serpent-god destroying the abode of life" are met with. Eden is a loan-word from Babylonia, as is also, apparently, cherub.

I do not see why Moses should not have handed down the account of the Flood, as detailed in Genesis. As Eden was apparently the Babylonian plain, this great catastrophe may be a Western Semitic version of the Babylonian tradition. In support of its Amorite origin, it may be noted that the name of the pilot, Puzur-Šadî-rabî, "the secret of the Great Mountain," would perhaps be best transcribed as Puzur-Amurrī, "the secret of the Amorite (god)."

Professor Clay is not alone in his opinion of "philological gymnastics." I, for one, have never at any time either accepted or believed in the possibility of Alaparos being Adam, notwithstanding the more correct Babylonian form Adapa. As to Melam-Kiš becoming Lamech, that is simply philological trickery comparable with the derivation of *haricot* from the Latin *faba*.

The paper is now open for discussion.

Mr. THEODORE ROBERTS thought there was an analogy between the earlier precocity of the negro boy, who was later surpassed by the white lad, and the fact that the Hamitic races—the Amorites, the Egyptians, and the Babylonians—were first to obtain a high degree of artificial civilization; for according to Professor Clay the latest investigations confirmed the Biblical genealogy of Gen. x, which derived the Amorite (verse 16), as well as Mizraim (Egypt) (verse 6) and Cush (from whom came Babel or Babylon) (Egypt) (verses 6–10), from Ham.

The statement in Moses' song that

" When the Most High gave to the nations their inheritance,
When he separated the children of men,
He set the bounds of the peoples
According to the number of the children of Israel "

(Deut. xxxii, 8),

involved the supersession of the Amorite in Palestine by Israel; but God waited because, as He told Abram in a vision, " the iniquity of the Amorite is not yet full " (Gen. xv, 16). The awful corruption of those early days, as now laid bare by the archæologist, not only in Palestine and neighbouring countries, but in Crete, justified the stern command to the Israelites to destroy the Canaanites, as in no other way could the infection be stayed. He thought Jehovah's word to Jerusalem, " The Amorite was thy father " (Ezek. xvi, 3, 45), indicated moral or spiritual affinity and not physical descent.

Although the Amorite's " height was like the height of the cedars, and he was strong as the oaks " (Amos ii, 9), yet even the " worm, Jacob," took out of his hand, with sword and bow, the double portion he gave to Joseph (Gen. xlviii, 22; John iv, 5)—an earnest of the conquest that his descendants were to accomplish. He believed the Amorite typified the first man that was of the earth, earthy, who must be superseded by the second Man who is of Heaven (1 Cor. xv, 47), which, now realized in faith and the Spirit by us, would be completely fulfilled in this very world in the millennial reign of Christ.

Mr. WILLIAM DALE said he could not understand Professor Clay's reference to Arabs in 2500 B.C., nor could he agree with him that the Jew and the Bedouin were not brother nations. The form of the skull was not conclusive. Ishmael was of the race of Shem,

and his wife was fetched out of Egypt during the time of the Hyksos, a Semitic dynasty. The prophecies concerning him, that he should be a wild man and dwell in the midst of his brethren, were fulfilled in the race, and in the history of nations there were only two that had survived distinct and separate from the beginning, viz., the Jew and the Bedouin.

Mr. W. HOSTE said: We have been so often told by those whom Dr. Clay calls the Pan-Babylonists (*alias* the Wellhausen School of Higher Criticism) that their "results are *assured*," that "all scholars are agreed," that we rub our eyes in some astonishment when one like the Professor, whom the critics would presumably reckon as a scholar, pours contempt on some of their most cherished "results," such as the Babylonian origin of the Creation story of Gen. i (*see* p. 97). "In spite of all the claims of Pan-Babylonists, this story, as preserved in the Biblical version and in the Greek, *contains absolutely nothing* that is Babylonian. There is *not a semblance of an idea* that can be proved as such. This refers to the colouring of the narrative, the names, foreign words—*in fact, everything*" (my italics).

On p. 96, referring to those parts of the Pentateuch assigned (as the conservatives believe, very arbitrarily) to the Yahvist of the ninth century B.C., to the Elohist of the eighth, and the Priestly edition in the fifth century, he asserts as "unquestionably correct" that "these are compilations which used versions and materials that belonged to a hoary past." "It is almost too preposterous for belief," says (on p. 97) the learned Professor, "that scholars can convince themselves that certain parts of this material were produced when Israel was at the height of its success and prosperity as a nation," and that other parts were got from Babylon during the exile. But, while accepting these conclusions, we find his grounds less convincing. The early chapters of Genesis contain what, to the Professor, are mere *naïvetés* (!)—a word to him, apparently, the equivalent of "childish stories," fruit of a low stage of human intelligence. It would be more correct to say "before primitive simplicity had been spoiled by worldly wisdom and sin," and when heaven dwelt very near man in his infancy. There is nothing wrong in being *childlike*! Our Lord—who "knew all things"—refers to some of these very *naïvetés* as binding on us to-day, *e.g.*,

the institution of marriage (Gen. ii, 24), and to righteous Abel and to Noah, as making history for us. Paul, who can scarcely be described as *naive*, believed that Satan, embodied in a serpent, did actually beguile Eve, and John the Apostle that Cain did kill Abel. "Let God be true and every man a liar!" Millions to-day believe the Son of God as the final authority, in spite of all His critics. Are the stories less beautiful and credible because they are simple? "Condescend to men of low estate" is a principle easily detected in the Divine Scriptures themselves.

As for the Professor's reference (on p. 97) to the creation story in Gen. i, I cannot find one of his "many passages in the poetical books of the Old Testament which reflect Israel's conception of the creation," &c. At any rate, I look in vain for a trace of such an idea as a conflict in Gen. i, 2. It simply says, "darkness was upon the face of the deep, and the Spirit of God *moved* upon the face of the waters." But *rah-ghaph* never has a thought of conflict, but to "brood over," "cherish," "flutter over" (Deut. xxxii, 11), as Gesenius says, "figuratively used of the Spirit of God, who brooded over the shapeless mass of the earth, cherishing and vivifying." Is it not, then, quite gratuitous to bring in this supposed conflict between Yahve and "Tehom" as preceding the creation of heaven and earth? There is no hint in the passage of any personification of "the deep," and the latter had already taken place (verse 1). The Professor's comments on the "philological gymnastics" of the critics (p. 99) are refreshing. There seems no limit to the credulity of the Pan-Babylonists!

Mr. W. E. Leslie said: Like Professor Ramsey, Professor Clay has found that the Biblical records can more usefully be approached as a collection of historical records than as a series of exercises in literary criticism. He still, however, accepts some of the results of the literary school.

There are two interesting points on p. 97. It is suggested that the *naïvetés* of the early chapters of Genesis are the product of the human mind in an archaic simplicity. But may not these *naïevtés* preserve for us a record of the condescension of a God who condescended to the anthropomorphism of the Incarnation, in revealing Himself to the archaic simplicity of His creatures. With

regard to the alleged conflict between the Creator and Tehom, the Biblical references to Rahab, Leviathan, &c., are undoubtedly obscure, but has not Professor Clay read into them Semitic ideas which are derivative rather than determinative?

On pp. 101 and 102 the references to Semitic deities bearing the Divine names El and Jah may appear startling at first, but on reflection such usage appears to be analogous to the use of Allah by the Mahommedans, and to point to a primitive revelation.

Mr. G. B. MICHELL, O.B.E., writes: It is difficult to estimate the actual value of this extremely important paper, because the limitations of space precluded the author from giving the full evidence for the conclusions drawn in it. These items are, no doubt, set forth in the author's other works which are cited, but which, unfortunately, I am unable at present to consult.

The anthropological evidence given in pp. 90–93, though sufficient to show that the Amorite peoples and their culture did not derive their origin from the Arabian desert and, consequently, that the theory of Israel as originally a barbarous horde of Bedawin, and their religion due to the "thunder-god" of Sinai, is impossible, does not seem to affect the question of the relative priority of the Armenoid peoples among themselves. I shall be intensely interested to examine Professor Clay's proofs for his main thesis.

I was unaware that "there have been already recovered several (outline histories of the world) from Babylonian libraries, which were written in the literary age . . . at the time of the Nîsin-Larsa-Babylonian dynasties." I was under the impression (from Langdon's *Babylonian Epic of Creation*, Oxford, 1923, p. 10) that, though an earlier Sumerian poem of a similar kind existed, which inspired the Semitic epic of creation, this latter was first written in the period of the First Babylonian Dynasty (B.C. 2170–1871, Fotheringham's revised calculation). Even of this, the only direct evidence of the existence of the great poem before the actual texts which contain the legend (which are late copies) is the inscription of Agum-kakrime (B.C. *c.* 1650), of which a copy has been found at Nineveh, describing the works of art with which Agum adorned the statues and sanctuaries of Marduk and Zarpanit. I do not question the value of these copies, but (1) the evidence for the existence of

the epic in the twenty-second century B.C. is only indirect, and (2) it is dependent upon copies, not originals.

The epic originally contained only six books. The earlier Sumerian poem to which I refer is a hymn to the names of Marduk, which now forms Book VII of Langdon's edition. It was finally attached to the epic in the late period, but it disagrees with the poem itself at many points. The proof of its prior independent existence depends upon a restoration of the defective note after line 125 in another copy.

If it is to this poem that Professor Clay refers, he must have other and more definite reasons for assigning it to the time of the Nîsin-Larsa-Babylonian dynasties (*c.* 2302–2067 B.C.).

May I point out that " the traditional home of the Hebrews " was not about Haran in Aram (p. 99), but Ur-Casdim—not, I believe, the great city of Ur which is now being investigated, but another Ur, which is distinguished from it by being specifically Ur-*Casdim* ?

I quite agree that there is nothing in the Genesis outline that can be shown to be of Babylonian origin (p. 99), and that the Sumerians cannot be credited with having originated practically every semblance of things cultural for the Semitic Babylonians (p. 95). Contrary to the current opinion, I believe that the early Babylonian (or Assyrian) Semitic dialect became a stereotyped " classical language," used for public purposes, at a comparatively early date and, as a colloquial tongue, was largely replaced by Aramaic, whereas the Sumerian language continued in common use in Chaldæa until the Persian period, and perhaps later.

I am surprised that the learned author of this paper still holds to the antiquated theories of " doublets" in the Bible story—especially of the deluge (p. 97) and of the redaction of the Pentateuch in the ninth, eighth, and fifth centuries B.C. (p. 96).

The former hypothesis has been sufficiently refuted by Mr. Finn (*The Unity of the Pentateuch*), Dr. Bissell (*The Pentateuch, Its Origin and Structure*), and Professor Kyle (*The Problem of the Pentateuch*). With regard to the latter view, it is surely more reasonable to believe, and intrinsically more probable, that ancient sources would be incorporated into a connected narrative in the time of the brilliant civilizations in Egypt, Sinai and Palestine of the Egyptian XVIIIth dynasty, and by a known leader of the great qualities of Moses, than by unknown individuals in the disturbed and degenerate days of the

later kings and the exile. It may have suited the critics of a time when nothing was known of the conditions of Palestine in the fifteenth century B.C. to ascribe this redaction to the times of which some little was known, but there is no valid reason for retaining the latter view now.

I doubt very much that the anthropomorphic ideas described at the foot of p. 96 can be properly called "*naïvetés*" or "archaic simplicity." Such ideas may be produced by very sophisticated minds. In any case, the age of Solomon was no further removed, except in point of time, from "a very primitive era," than that of Moses.

The study of the names "El" and "Yah" (pp. 101 ff.) is very interesting and, as regards "El," probably sound. But I am not at all convinced of the identification of "Yah" with "Ea" or "Yâwi" or "Jâwa."

I think the name was "Yahūh," both the aspirates being distinctly pronounced and radical. Both the forms "Jehovah" and "Yahweh" are equally incorrect and grammatically impossible.

674TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, MARCH 9TH, 1925.

AT 4.30 P.M,

THE REV. ERIC K. C. HAMILTON, M.A., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed.

The CHAIRMAN explained that the Rev. Dr. C. E. Raven had, for reasons of health, asked that his engagement might be cancelled, and that the Rev. Charles Gardner, M.A., had stepped into the breach at very short notice. The best thanks of the Council were due to him for this.

The CHAIRMAN then called on the Rev. Charles Gardner, M.A., to read his paper on "Nature and Supernature."

NATURE AND SUPERNATURE.

By the REV. CHARLES GARDNER, M.A.

MATTHEW ARNOLD said that the saints of the Middle Ages were governed by heart and imagination. They feared the senses and the body, and mortified the bodily senses with extreme austerity. In the sixteenth century a reaction took place, and this reaction was carried on into the eighteenth century, when there was the restoration of the intelligence and the senses. Matthew Arnold defined the modern mind as imaginative reason: a definition which, I think, served for the nineteenth century, but it does not serve for the twentieth, because in our own time we have had a reaction against the intelligence. A great many followers of Bergson are anti-intellectualists.

Coming back to the Middle Age, it emerged out of such a dark period; nobody knows exactly what was happening during that dark period, but out of it came the great Middle Age. Many people hark back to it, their imagination captivated, or in doubt of present time. I want to give a negative definition, and say what the Middle Ages were not remarkable for. Mediævalism was essentially a distrust of nature. Nature had so far fallen out of account in the scientific world that if you happened to be a physician you had to quote Galen or Averroes. You must never make direct observations on nature, otherwise you ran athwart

the Scholastic tradition. With the theologians and saints there was a very sharp antithesis between nature and grace. Nature was mistrusted, and therefore to be overcome, and when nature was overcome the saint hoped to attain perfection in the supernatural life. Let us look more closely at this word "nature." We understand by nature in the widest sense of the word the universe—and not only as we know it in this world. Nature includes man's body, which it constantly affects.

To take examples from the Middle Ages. When you start with a distrust of nature and a distrust also of the intelligence, but retain a passionate belief in the heart and imagination, you get the sort of saint that is represented by St. Bernard. Notice especially how he sets about to imitate Christ. Bernard begins with a fixed determination to overcome nature in order to reach to a supernatural life. He finds himself in his lower nature a part of this nature—that is, by his body; and living in an age when asceticism was very much to the fore in the Church, he thought he could help by taking his body in hand, starving it as far as he could; and, not only so, he proceeded to dull every one of his senses, and actually to bring them to a state of atrophy. One of the strange things about St. Bernard was that he could go through the most beautiful country in France and never see the natural beauties all along his walk. You might give him the sourest vinegar and he would not know the difference between that and wine. And so with his ear. He could not distinguish between the sweetest song of the nightingale and that of any other bird. You cannot say his spiritual life was rooted, in any sense of the word, in the natural. Certainly it was rooted in God, but cut off from any natural foundation. It is really a spirituality that is divorced from nature. The result is, that when St. Bernard reaches his ideal he is desperately thin, and his eyes are almost starting out of his head, the flesh has so completely fallen away. But he does stand for spirit, and he has a very exquisite spirituality. A man of heart, a man of very lovely imagination, which he revealed in his work on the *Song of Solomon*. His treatise on *The Love of God* shows the same qualities. There is always in these cases of exaggeration a reaction. We can very conveniently study the reaction here in Abélard, who represents all that is denied by Bernard. He was stirred by a passionate love of nature. He had a most romantic love affair with Héloïse. Taking the typical examples of the Middle Ages you can see the age cut into two by Bernard and Abélard—the extraordinary

and dramatic Abélard, who had travelled in many countries of Europe, and had come so victorious out of every University that he was considered the great dialectician. He had only one man to reduce to silence before his victory was complete. That man was Bernard, and they were to meet at the cathedral of Sens. All the great ladies were present, all the savants, all the learned people of the age. Bernard came—a little, thin man, head down, and eyes to the ground. Abélard looked disdainfully at him, and then a strange thing happened. Bernard looked at Abélard—spirit looked at nature, nature succumbed, Abélard's courage failed. He fled out of the cathedral, conquered by Bernard, showing that spirit, even if divorced from nature, is stronger than nature. If you have to choose between spirit and nature—Bernard and Abélard—you must choose Bernard.

The abuse in the Middle Ages is seen in a great many people who, in their distrust of nature, came to look upon nature as evil. It led them into a dualism of evil nature and good spirit. Seeing that man's body was part of nature, they regarded it as the seat of man's evil. That is Manicheism, which misapplies the principle of asceticism. When we get the whole thing into its right proportion, man's perfection lies not in bringing his natural self to perfection, but by being born again of the Spirit and reaching perfection in the supernatural life. There is required a certain amount of discipline of the body, and from that point of view asceticism is a help and not a hindrance.

* * * * *

There is an old truth which we are familiar with to-day—that we only live in so far as we die: that the Lord Christ attained to fullness of Resurrection Life because He first died. The process of dying to live has to be carried out in every part of our nature. Every Christian knows that there is a death unto sin and a new birth unto righteousness. St. Francis rose again towards nature, but after that process of dying to live in nature he no longer regarded nature as his mother; he welcomed nature as his sister. When brother Francis comes back to nature, after having died to nature, he bursts out into a lovely song of the sun and moon and stars, and unexpectedly turning again to his body, which he had held in contempt, welcomed it by the name of "Brother Ass," because it carried so many burdens. I take St. Francis as an example of one in the Middle Ages who transcended his age.

Coming now to the sixteenth century. I am not going to touch upon the Reformation to-day. Another process discernible in the sixteenth century is a return to nature ; a return to nature that was begun, not by the Catholics, not by the Protestants, but by men of science, and I have chosen as my representative man Copernicus. He perhaps does not best typify the period, but he represents the scientific spirit, one of those names that has revolutionized the old cosmogony. He represents the return to nature and also a return to reason. He sat under a learned man of the day, Pomponazzi, who insisted on the use of reason. Copernicus, who was studying theology and was learning from Pomponazzi to use his reason, was also a good classical scholar, a philosopher and an artist. His doctrine of the earth going round the sun was opposed to the accepted scholastic tradition which prevailed until he began, with his own use of reason and eyes, to study nature and make his observations on the natural facts, and this was a beginning of what we call induction. That is, he made his observations, he grouped together his facts, and then he argued from particulars to generals ; and that is an accurate example of the way the modern mind works. I am understanding here the real, true modern mind. Copernicus then returned to the teaching of Pythagoras, who had affirmed that the earth went round the sun, and there was a huge consternation in the learned world. The Roman Catholic Church looked on him with interest, and, as she was busy revising the Calendar, she consulted him. Martin Luther called him "that fool." Calvin quoted the ninety-third Psalm and thought that was a sufficient refutation. The Church of Rome eventually condemned Copernicus. We must say in extenuation that she took the advice of scientific men, and it was the men of science who first condemned Copernicus. We are always hearing to-day that it was the Church, but having asked for advice she thought it better to follow the men of science.

This marks what I call a return to nature, and it has continued down to this twentieth century. Let us begin with the abuse of nature. Bruno is an example of the abuse of nature. Giordano Bruno is, however, fashionable to-day with the modern people, and they remember that the Church of Rome burnt him at the stake. Mrs. Annie Besant likes to believe that she was Bruno ! Bruno was brought up in a Dominican monastery. As a boy he accepted the Copernican system, but soon began to make his own observations on nature. He grew impatient of

the Church teaching. He despised the Dominican brethren and chaffed them for their devotion. He hated their heresy hunts and subservience to Aristotle. He fell in love with nature, and then, wanting to find a name for nature—he was so enamoured of her—he called nature his mother. He studied the multiplicity of facts in nature, and, with a desire to come to some sort of unity, he revived the old theory of Pantheism. He affirmed that there is only one substance, and, therefore, though there seems to be a multiplicity of persons and things, there is a fundamental unity of all persons and things in the unity of God, of whom every separate man is a part. Pantheism was the result in Bruno of his poring over the principles of Copernicus and falling in love with nature. I want you to notice the action of the Church of Rome with regard to Bruno. She did not understand the Copernican system, but she did understand Pantheism. She was one of the great religious bodies which have always known where they stood towards Pantheism. Watching Bruno she was inclined to think that the principles of Copernicus led to Pantheism, but she condemned Bruno as a Pantheist and not as a Copernican.

Now we may come down rather more rapidly to the nineteenth century and see what was its attitude towards nature. To start with Thomas Carlyle. Carlyle represented a very large number of thinkers who turned from the supernatural, and reacted so violently against it that they returned to nature, and said that what you call the supernatural is simply a part of nature itself. It is a part of the natural process, and nature is the handiwork of God who works mediately through her. Therefore, if you will turn to nature and study her laws, you will find as much as you can know of God. Supernatural religion, the miraculous element in the Bible, all idea of revelation as something that God has given directly, were repudiated, and men said: Maybe the great moral laws are to be found in nature. Let us study nature and see whether we cannot find in her everything that justifies our morality. They turned to nature, and the early Victorian said: What we call morality is the result of a long course of evolution. We learned long ago that it is better to have a clean face than a dirty face. We learned later by experience that it was better to have a clean heart than a dirty heart. They evolved this great principle of nature of which man himself is a part. Then they went on to ask: Can we find in the moral world sufficiently the law of cause and effect? When they studied again they

discovered in human conduct that what a man sows that he always reaps. Every action, every thought is so much seed, and brings its inevitable result; and, therefore, they said, the wise man is the one who studies the law of cause and effect in human conduct, and when he has mastered that law applies it to his own life, working it out in his own conduct. One good came from this movement: it taught men to see that in the spiritual life there is this law of cause and effect. After men had repudiated the supernatural and very much of the spiritual world, and learned to respect God's laws in nature, at a later stage they turned round and said: May we not find these laws working through the spiritual world? It was Henry Drummond who wrote a book called *Natural Law in the Spiritual World*, which is useful because it does mark in the latter part of the nineteenth century the application of what men were learning from nature to the facts of supernature. It is a little harbinger of the swing of the pendulum when the supernatural shall come into its own.

Now for the twentieth century and where we stand. I know there are some teachers in high places in the Church who repudiate the supernatural on the ground that it is all to be found in nature. The Dean of St. Paul's is one who takes that line. There are signs that men, having discovered just how much they could learn from nature of the law of morality, are turning back once more to the supernatural. They are studying the laws of the supernatural life; and, they declare, not that natural law is found in the spiritual world, but spiritual law is running throughout the whole universe. This recovery of the idea of law in the supernatural is, I think, the most supremely important thing that is going on at the present time. The reaction of the sixteenth century has spent itself. We are coming back to the supernatural. What will be the result when we have reinstated the supernatural? This is, I think, something of the line we shall take. We shall say that God has two ways of working. He works mediately through nature; that is, nature is His means of working on a particular level. Then, on the higher level of the supernatural life He works both mediately and immediately; that is, God can use means for working, but God is Himself higher than law, being the Lawgiver, and therefore must never be regarded as subject to His own laws. Immediate action of God is what used to be called in the old-fashioned days a miracle, or a supernatural act. In getting back to it in this way we are not repudiating nature, but we have climbed

by means of nature, and we have come back to nature through the supernatural way.

How does this affect the whole of the question of faith and the question of the Bible? An experiment has been made—it has been made a thousand times—to take the supernatural element out of the Bible, both the Old and the New Testaments, and people have thought when they have done it they might get a good result. The experiment has shown that when the faith is rejected a philosophy must take its place, and the Bible is read in the light usually of the particular philosophy of the passing age. If that is so, we may ask ourselves, what happens, supposing we begin again to read our Bibles with a frank recognition of the possibility of the supernatural?

We shall turn at first to what is central in the Bible, the Incarnation of our Lord Jesus Christ. The Incarnation is the interference or intervention of God in human history, and is itself a supernatural act of God putting forth His own will immediately to accomplish His purpose in the world. Supposing you accept that, then it seems to me congruous that the One born into this world in that way should be born, not like others, but supernaturally of a Virgin. Again, if such a One dies, there is a possibility of a supernatural act of God that would raise Him up again. Then the Resurrection supposes an Ascension. Reading the Bible thus, and seeing how the Old and the New Testaments are interwoven so closely that you cannot block out the one without the other, you then ask, finally, whether the supernatural is not the only key to the Bible.

Now, all the difficult and diverse and heterogeneous parts suddenly fall into place and converge to one central unity in Christ. I think if we look at it in this way we get our Bible back again, but at the same time keep a larger outlook.

Finally, I suggest that we need a new type of Christian. What draws us to our Lord is the spontaneous loveliness of His character that was not restrained, but fashioned freely by the passion, fire and impulse of His love to the Father and to His children. His divine love included all simple natural things, birds and fruits, earth and sky, till they became the pith and marrow of His parables. We die to live in Him, and when our love to Him becomes the central passion of our lives, it will create a new character in which all the parts of our manifold being, natural and supernatural, will be first unified, and each part will contribute to the completeness of the perfect image.

DISCUSSION.

The CHAIRMAN: Generally, I think you will agree that when one sees on the paper that the original speaker has to cry off at the last moment and another speaker is to take his place, the second string is almost always a sorry edition of the first. I have no doubt that Dr. Raven's paper was remarkable, but I daresay the paper we have heard on this subject would be second to none, and, although I know how appreciative you always are, I should like from the Chair to move a very hearty vote of thanks to Mr. Gardner for all that he has said this afternoon. (Acclamation.)

I see I am expected to make a few remarks. You will remember the extraordinarily vivid picture Mr. Gardner gave us of Abélard. I have a great sympathy for Abélard. You will remember he was in the cathedral surrounded by savants and rich ladies. Abelard was an extremely intelligent man—which I am not; St. Bernard was also. More than that, Mr. Gardner is an extremely intelligent man, so that, far from following in his footsteps, I would rather beat an ignominious retreat.

I would like to ask one question which he may think it worth while to answer, and which perhaps someone in the room may like to enlarge upon. Though I felt I welcomed everything he said in his conclusion about finding the Bible again as a result of this return to the supernatural, I yet wonder with what equipment we may reverently criticize the Bible, while we are perfectly prepared—more than prepared—to accept the supernatural. I do not know whether I have made that brief question clear. We are not to give up an intelligent and rational interest in these documents, even if we are able, by the grace of God—or whatever way you like to put it, not merely to accept, but to look out for, again and again in the Old Testament, the supernatural, the immediate action of God.

The Rev. J. J. B. COLES thanked Mr. Gardner for his very interesting paper. The study of the phenomena of nature should be distinguished from psychological and religious questions relating to man's fallen nature and from the spiritual conflicts of the saints and mystics.

To be "dead to nature" should not be an excuse for unnatural

behaviour in our human relationships. "Union with God," which often occurs in the writings of Christian and non-Christian mystics, is not a Scriptural expression. "He that is joined to the Lord is one spirit" is affirmed of the Christian, but "union with God" is not found in the sacred writings.

Mr. ROBERTS: I am very glad that Mr. Coles preceded me. He has said some of the things I should have liked to have said, and he has said them better than I could have done. I should like to give you my own experience as showing the extremely apposite illustration Mr. Gardner took in St. Bernard. I did not hear him commence his paper, but, as I came in, it at once flashed across my mind that this must be St. Bernard of whom he was speaking. I remember that St. Bernard spent three days walking round the Lake of Geneva, and during those three days he never once looked down upon the beauties of that lake, that he might reserve his thoughts for heavenly things.

We must remember we have spirits that God has endowed with an eternal existence, and that this spirit is under some malignant influence and has become rebellious against God, and that spirit has to be re-born; and while the process is going on in our earthly life of probation, we have to turn away from the "old man," but in doing so we should by no means turn away from nature.

There is one thing more I want to make clear. At the end of all I think we shall find that there is nothing arbitrary in the acts of God; that in creation and in the new creation, in the Incarnation and in our salvation, everything results from who God is. That is to say, God cannot do anything other than what He has done, because of who He is. We find that God is love, and this is manifested in His sending His Son to save us. Therefore we are thrown back upon the blessed God who works all things according to His own will, and we know what He is because He is the very God who has redeemed us.

Lieut.-Col. G. MACKINLAY said: I cordially second our Chairman's vote of thanks to our learned lecturer. I have been much impressed of late by the exhortation to be sober-minded in the shorter Pauline epistles, and I believe we have just listened to a most sober-minded address. We have been reminded very graphically of a good many of the prevailing fashions and changes of thought which have swept

over the religious minds of Europe during the last few hundred years; the list is a long one, continued even to the present time. Our author has well described the reactions which have followed the adoption of almost all the phases of thought which have arisen since the dark ages.

Wildness of belief still arises and modern thought puzzles the man and woman of the present time. How important it is to be guided aright in the mazes which surround us!

Mr. Gardner highly praises nature and the laws by which it is governed—which are, indeed, the laws of the Creator; our author wisely tells us that the Creator Himself can direct His own laws according to His own will. This is to be expected; in the Christian plan we find miracles employed again and again; in fact, the supernatural lies at the root of all the main facts on which the Christian religion firmly rests.

We were expecting another speaker this afternoon; he was unable to come, and Mr. Gardner very kindly and readily consented to take his place at short notice, but I feel sure none of us will go away disappointed in any way this afternoon.

Mr. AVARY H. FORBES said: Mr. Gardner's interesting paper suffered from a lack of definition. The word "nature" ran through it from beginning to end, but was nowhere defined. It seemed to be contrasted, not with the artificial, but with—*nature*. There are long-standing ambiguities connected with the word, as we see in such phrases as "natural history," "a natural child," etc. Mr. Gardner seemed to use it, as St. Paul uses the word "flesh" (though that, too, is an ambiguous word), to denote man's experiences or feelings coming in through the bodily senses, in contrast to the higher intellectual and spiritual experiences which come in through the mental faculties. But these latter are equally part of our "nature." I quite believe that there is something transcendental and supernatural in the "joy unspeakable" experienced by some converts and mystics; but when it is objected that religious revivals give rise to emotional feelings, and therefore appeal to a lower form of mentality than that of science and philosophy, it should be pointed out that the experiences of the philosopher and the scientist are precisely the same in kind as those of the convert, though usually

not so in degree. The *aim* also is the same in each case, viz., happiness. The scientist who makes a great discovery, or the philosopher who writes an epoch-making book on ethics or psychology, *rejoices* in his success, in the influence he wields, in the stir he has made, in the way he is talked about, run after, interviewed, quoted; or, it may be, in the way his name will be enshrined, for ages to come, in the world's temple of fame. His gladness may be more intellectual than that of the mystic or the convert, but it comes equally under the category of emotion, and therefore belongs equally to nature.

I should also incline to regard Bacon, rather than Copernicus, as the great pioneer and leader in inductive science. Copernicus concentrated on astronomy; Bacon's philosophy applied equally to all the sciences.

Mr. W. HOSTE said: The interesting distinction the lecturer has developed between Bernard of Clairvaux and Francis d'Assisi, may be illustrated, I would suggest, from Psalms ciii and civ, clearly both by same author, let us assume, David. They are in marked contrast, though they both begin and end with the same phrase, "Bless the Lord, O my soul." Psalm ciii is occupied with the theme of spiritual blessings; the other almost entirely with creation and the good of nature. Bernard would have reversed this. Probably in his unspiritual days he admired nature, but that must be remedied. He must not love nature, but die to it. I have heard of modern pietists who refused to admire the most lovely scenery, on the ground that it was part of a doomed creation? They were seekers after the higher life; all that belonged to the lower must be suppressed. But to be "without natural affection" is not a feather in one's cap. However, eventually, Bernard leaves Psalm civ for Psalm ciii. With Francis the order was reversed. He learns to adore the Creator and love nature as a whole. Now, which of these Psalms is on the higher spiritual plane? Probably nine out of ten would say the former, but I think the reverse to be true. In Psalm ciii the writer is speaking to his soul about God, it was third-person religion—"my soul"—"He"; in Psalm civ he is speaking to God in more direct communion; it is second-person experience—"my God" and "Thine"—words never found in the other. I remember in a life by the late Dr. Moule of Durham—which I would earnestly commend to all present, of one who had equal claims, along

with the humblest believer in Christ, to canonization, in the New Testament sense, to Bernard or Francis, and whose sainthood was, I make bold to say, developed on simpler Christian lines than either of those great men—" Charles Simeon of Cambridge," how he admits that as he grew in spiritual experience he was increasingly led to worship God as seen in the works of nature realizing it was the Creator of those wonders who was his Redeemer.

The Rev. A. H. FINN said he felt it would be presumption on his part to criticize anything said by Mr. Gardner, and asked that his remarks might be taken rather as suggestions than criticisms.

Mr. Gardner had alluded to the verse (1 Cor. xv, 40) " first . . . that which is natural and afterward that which is spiritual." He would venture to remind Mr. Gardner (though no doubt he was fully aware of it) that the word for " natural " was ψυχικὸν, and ψυχὴ is the Greek equivalent for the Hebrew " nephesh," applied to birds and animals (Gen. i, 20, 24) as well as to man (Gen. ii, 7). It signifies therefore the life of intelligence, will, and emotion which to some extent animals share with man. The spirit, πνεῦμα, is the Divine element in man which enables him to enter into communion with God.

As to Psalm xciii, 2 (P.B.—" He hath made the round world so sure that it cannot be moved "), he had not the Hebrew with him, but believed the word for " round world " was " tebhel," which means the inhabited world (οἰκουμένη), and can hardly refer to the nations. The real difficulty lies in the words " be moved." The word used properly means " totter " (or " be shaken "; Gr. σαλευθήσεται), and does not imply that the earth is immovable. It refers to the motion being so equable that we do not perceive it, though we are flying round at thousands of miles an hour.

Reference was made to the 19th-century teaching, that every act or thought of man was a cause producing an inevitable effect, so that " as a man sows, so shall he reap." That was only what was taught five centuries B.C. by Gautama the Buddha. The difference between that and our belief is that those considered it in the light of a mechanical process, while we refer it to the will of God.

The Chairman had asked how far reverent criticism of Scripture was permissible. For himself, he was of opinion that much of modern criticism was decidedly irreverent. But his chief complaint against the Higher Criticism (and some present would know that he had

devoted a good deal of study to it) was that it was unscientific. It was often illogical, founded on perversion or ignoring of the facts. Many arguments are deduced, not from facts but from omissions, which is bad criticism.

As to nature and supernature, for us nature must mean all that God has created, and what are called the Laws of Nature are the laws which He has imposed on His creation. Men might try to eliminate the supernatural from the pages of Scripture, but they can never get rid of the Supernature which is the Creator.

The AUTHOR's reply: I feel myself so in agreement with what has been said by the last speaker that I should have done better to have avoided any reference to the New Testament use of the word "natural." For instance, the *natural* man or the *natural* body always in the Greek is derived from ψυχικὸς, so that it did bring a little ambiguity into my address which I plead guilty to. I am understanding by "nature," this great world of nature on which we look out and which is not man's creation. I am not considering the mental processes in the consideration of the subject. I trust that this answer to Mr. Coles will put the matter in a better light, and I substantially agree with his remarks.

Let me come to Mr. Hamilton's remarks about criticism. I find it difficult to say in a few words all that I should like to, but certain things have come into my mind after reading some long German lives of Christ, and the first thing is that most of them are very dull. One German life of our Lord Jesus Christ goes into six volumes which are desperately prolix, and even though they contain quantities of learning, they show little imagination. German criticism originated with Britain and France. Voltaire went to the Court of Frederick the Great and introduced French rationalism. German students studied the English Theists. England and France set Germany at the work of criticism, and she worked upon it, generally, with a theory to which everything was subject. I say, get rid of that theory, and keep an open mind and admit the supernatural, and then, I think, we shall not stumble much over the difficult parts of the Bible. But is there anything we shall learn from these long lives of Jesus, and the interpretation of the Bible from the literary point of view and its more human side? Yes, we shall see better the Bible story in the context and perspective of human history.

675TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM D, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, MARCH 23RD, 1925, AT 4.30 P.M.

WILLIAM DALE, ESQ., F.G.S., F.S.A., IN THE CHAIR.

The Proceedings commenced by a statement from the CHAIRMAN, that Mr. W. Jennings Bryan, having failed to send in his paper, the Council had been obliged to substitute for it, at the last moment, the paper which the Rev. Dr. M. G. Kyle had sent in for the 20th prox.

The Minutes of the previous Meeting were read, confirmed, and signed, and the HON. SECRETARY announced that Major H. Charlewood Turner, a former Secretary of the Society, had been elected a Member, and also that the Langhorne Orchard Prize on "Can Revelation and Evolution be Harmonized?" had been adjudged to Professor George McCready Price, M.A., of Union College, Nebraska, U.S.A., a Member of the Institute.

The CHAIRMAN then called on Lieut.-Colonel F. A. Molony, in the absence of the Rev. Dr. Kyle, to read the paper on "The Antiquity of Man According to the Genesis Account."

THE ANTIQUITY OF MAN ACCORDING TO THE GENESIS ACCOUNT.

By the Rev. President M. G. KYLE, D.D., LL.D., Xenia Theological Seminary, U.S.A.

ANY adequate and satisfactory discussion of the antiquity of man according to the Genesis account, or any other source of materials, must not only present chronological data, but, and more especially, the stage of advancement in civilization; not merely the antiquity of man in time, but the man of antiquity in his time. Dates do not tell us very much; a mere calendar is not very illuminating. It is only when we are able to locate ourselves at some point indicated by a date and see, as in a *camera obscura*, life at that date streaming by us that we are much instructed.

It is well to state in this case the presuppositions—necessary, indeed, to every discussion which does not propose to discuss everything by beginning at the very beginning—the presuppositions, I say, which underly what is about to be said; let us get our feet upon a solid and clearly understood foundation

before we attempt to build a superstructure representing the antiquity of man.

The first presupposition of this discussion is the progressive creation set forth in the first chapter of Genesis, the progress that begins with the announcement of the creation of the materials of the whole heavens and earth and then proceeds in an orderly way to the arrangement of those materials for a suitable habitat for man. The mighty power of God goes forth over the waters imparting motion, followed immediately by the fiat, "Let there be light," a mode of motion; and then rotation at once sets up the succession of day and night. The waters above the earth lift to form the clouds and the open firmament of heaven appears. Upheavals of the earth thrust up the dry land, and the waters running down are gathered into the seas. The earth brings forth the herb bearing seed, and the permanence of species is proclaimed in the words, "After its kind." Then the waters of the sea brought forth the lowest forms of animated life, and the heavens cleared away so that the heavenly bodies came to be for signs and for seasons. The earth also brought forth the lowest forms of life upon land; all animate life was given procreative power, and each limited by the divine fiat, "After its kind." Last of all, the creation of man was in the image of God; "In the image of God created He him, male and female created He them." The continuance of the race in a pure human character was not imperilled by leaving to mere chance to bring a man "sport" and a woman "sport" together in the same age and the same land to set agoing a race of human beings; God *made* them male and female as he had *made* all the animals, that there might be no half species, so-called missing links. Thus was creation finished; not a theistic evolution, which will not evolve except when God comes in and gives it another turn, but a progressive creation that was never intended to run alone.

Another presupposition upon which we must take our stand securely is the trustworthiness of ancient documents. Creation had no historian; nobody was there to observe and relate; only God can tell us about it. Science may find out much concerning results; it is great in examining materials. But science is organized knowledge, organized always upon the principle of the continuity of nature. But the continuity of nature belongs only to that portion of eternity marked off as time, which began with creation and will end at the winding

up of the affairs of this world. It can tell us nothing about creation, for creation brought the laws of nature into being; they could not preside over their own birth. Concerning man's starting off in the world, then, only God can tell us.

But if the ancient documents which purport to tell us of the antiquity of man, back to his beginning, are not trustworthy, if these documents have been thrown together promiscuously and are mutilated and interpolated and incorrectly transmitted and are generally untrustworthy, then we know nothing reliable on the subject of creation. This trustworthiness of ancient documents is of transcendent importance. Criticism and archæology have proceeded along parallel but dissimilar lines; criticism starts from the assumption of the untrustworthiness of ancient documents, which therefore must be re-written and reconstructed —are composed, in fact, of scraps, filled with mistakes, and so are untrustworthy. Archæology, in both the Biblical and the classical fields, has started without assumption and has proceeded uniformly toward trustworthiness of ancient documents. The whole underlying Homeric stories, the account of the ruined palace and splendour of King Minos and the story of Menes, the first king in Egypt, all formerly regarded as legendary or mythical, have now taken their place in sober history. Herodotus and Strabo and Josephus, so often charged with inaccuracies, have again and again been found to be correct. In the Biblical field not a single statement of fact has been finally discredited. Thus men come more and more to believe in the trustworthiness of ancient documents, until with many it has become almost an axiom.

With man, made in the image of God, as the crowning act of a progressive creation, and with the record of this sent down to us by trustworthy documents candidly presupposed, we are now ready to consider the antiquity of man according to the Genesis account, and also still more exactly and completely the man of antiquity according to that account.

The Genesis account presents to us the real primitive man. Much is written on the subject of anthropology concerning primitive man, as found here and there in different parts and different ages of the world. The only real primitive man in the absolute sense of the word primitive was the first man, the progenitor of the human race; though some cling to the supposition that there were many different centres of population whence the race spread over the world, and so the race had many

progenitors. Yet all the traceable lines of migration and of philological relationships as well as the physiological characteristics of the race point to a common original in a single progenitor sometime, somewhere, so that the most and the best investigators on different lines of scientific evidence consent to the statement of Scripture that presents to us, "All men of one blood to dwell on all the face of the earth." The plain intent of the Genesis account assumes this as a fact, and tells us of the first man, the one progenitor of the race.

I. Physical Conditions of Life of Primitive Man.

The physical conditions of life to which primitive man was subject as presented in the Bible are most interesting, and especially so when compared with the presuppositions of anthropologists on the subject. He is represented in Genesis as having capabilities; he was to subdue the earth and replenish it and rule over it, and was set in the Garden of Eden to dress it and to keep it. But as yet he had not put these capabilities into exercise; he was able to do all things that men ever do, but he had not yet begun to do any of them. He had done nothing to subdue the earth or to keep the garden in order; he had done nothing for himself, had neither made clothes, built himself a house, nor done anything toward producing food. He was, as yet, only a food gatherer.

Then, as he had done nothing, manifestly nothing had been done in the world. As he was an unskilled man as yet, so the world was an untouched world. There were no roads, no buildings, no implements. There was nothing that man has produced. It is true he was put in a garden, but it was not an Italian garden, nor a Japanese garden, nor any other kind of a made garden of flowers and vegetables with beds and paths and all things in order. It was one of God's gardens, a field of poppies, a lily marsh, a hillside of rhododendrons, a tangle of glorious fir trees and poplars. Thus, nothing that man has ever learned was as yet acquired, and nothing that civilization has given to the world was yet begun. This unskilled man in an untouched world was naked and in the woods.

We seem to be given also in the Genesis account an illuminating note of philological beginnings. It used to be thought

that all, or nearly all, words of human speech could be traced back to verbal roots; though how anybody ever conversed in verbs, much less in the roots of verbs, it would puzzle even a philologist to explain. It is observed that some languages have only one real verb, to do; or were like the ancient Egyptian, which used "to do" and "to stand" and "to be" with a great many verbal nouns. Children also always begin to talk not with verbs at all, but with the names of things. And now philologists have taken the ground that language began not with verbs, but with nouns. How perfectly natural, then, that when this new creature, man, began to try to talk, he should first name the objects round about him, and what objects would first attract his attention more than the moving objects, the beautiful creatures of the wood and the field around him. Now, this is exactly the first exercise of human speech of which we have any hint. "Whatsoever Adam called any creature that was the name thereof." Of course! There was nobody else to give it any other name. But the very simplicity of this account causes many to overlook the importance of it. Here is also recognized the arbitrariness of language; words always mean only what they are understood to mean by those who use them. And, except in the case of a few onomatopoetic words, they have no natural meaning. "Whatsoever Adam called" a thing that was the name of it, is the simple announcement, in terms that even children can understand, of the fundamental principle in the growth of language.

The moral condition of this primitive man is not less interesting than the natural conditions of his life. As he had not begun to do anything, so neither had he begun to sin. Just as his natural capabilities had not yet been put to exercise, so his moral character was not yet developed by exercise. Like one to be born long afterwards, this primitive man was to grow "in wisdom and in stature and in favour with God and man." Thus his perfection was the perfectness of completeness and not that of attainment or achievement.

The trying out of the moral nature of man that he should grow in wisdom and in stature and in favour, is of transcendent interest in the Genesis account of the antiquity of man that we may understand the state of advancement of this primitive man of antiquity. The human soul was free, for only such a creature would be in the "Image of God." But freedom involves freedom of choice, and a choice between good and

evil opens for us the way toward temptation. How temptation had access and why, we do not know; but our ignorance on the subject is no greater for that time than for the present.

The account of the temptation of primitive man has been much jeered at by shallow thoughtlessness. If we look narrowly at primitive man, we shall have no difficulty concerning the significance of his temptation. The so-called "childishness" of the temptation story in Genesis is exactly in keeping with the childhood of the race. It is an account of the temptation of primitive man. Now what kind of a temptation could come to such a man as we have seen? Temptation must come within the horizon of our desires. I might be tempted with a handsome limousine, but I could not be tempted with a white elephant, for I have no desire whatever to possess a white elephant. What kind of temptation could come within the narrow horizon of primitive man? None of the complex and intricate temptations of our present-day civilization could appeal to him. Eve could not be tempted to envy her neighbour's new bonnet, or fine clothes, or social pre-eminence, Adam could not be tempted to overreach his neighbour or to speculate in margins, or to be a grafter, political or otherwise. Neither could temptation come down the road to him in a limousine with powder on her nose! The artificial, complex temptations of to-day do not come within the horizon of primitive man at all, but only such temptations as appealed to his active desires. The desire of achievement had no competitor; the desire for possession was fully gratified, for he possessed all the world. Only the desire to enjoy the good things was within his horizon as a field of temptation, and here the only immediate desire to which appeal could be made was concerning something to eat.

Thus, the Genesis account of the trying out of the moral nature of primitive man is exactly in accord with the conditions of his life; just such an account as must be given of the first temptation of man primitive, if we had no Bible at all. Any other kind of account would be an absurdity. If the story in Genesis presented some of the complex, artificial temptations of an advanced state of civilization it would be pounced upon at once as absolutely anachronistic and impossible.

Complete consideration of all the details connected with the temptation and the fall would lead us far afield beyond the scope of this paper; there is need only to see the effect of these things upon the man of antiquity and upon the progress which he might

make as we attempt to get some definite idea of the antiquity of man.

Limited as was the horizon of experience of the man of antiquity to whom temptation came, the temptation as described runs through the whole gamut of the desires of the soul, and the account, though it reads like a bed-time story for children, yet sounds the profoundest depths of psychology and ethics, even within the narrow scope of the appetites. The temptation appealed first to the desire to enjoy things (Gen. iii, 1); then to the desire to obtain things (Gen. iii, 4); and then to the desire to do things (Gen. iii, 5). Yielding was progressive also and in the same order and as the temptation went on, "And when the woman saw that the tree was good for food, and that it was pleasant to the eyes, and a tree to be desired to make one wise, she took of the fruit thereof, and did eat, and gave also unto her husband with her and he did eat." Here we have in regular order "the lust of the flesh, the lust of the eye, and the pride of life." John says that these are "all that is in the world"; for the desire to enjoy things has to do with what goes on within, the desire to obtain things with what comes in from without, and the desire to do things with what goes out from within. Manifestly these three cover all possible influences that can touch the soul, and our Lord was tempted in "all points," not *all ways*, but at "all points" as we are, and actually met precisely the same temptations to enjoy things, and to obtain things, and to do things that might make the world stare. He heard the temptations within, but did not open the door. Thus, the man of antiquity met at the outset of life what everyone at any time meets at the opening of a career. The whole gamut of desires was tried out through every approach to the soul; under the temptation *he* fell.

The death that was threatened him is learned from what happened in that "day." Desire was perverted and must be subjected to conscience. Immediate fellowship with God was interrupted and mediation made necessary. And the submissive sense of responsibility was repudiated. He was shut out from the tree of life that had made him *posse non mori*, "able not to die," and sent out into a world cursed for sin with only the bud of a promise of a far-off redemption.

The course of the progress in civilization of this man of antiquity is most briefly yet clearly set forth in exact scientific order, but in popular language, in the fourth chapter of Genesis. First, there

took place the domestication of animals; they became "keepers of sheep." And then arose agriculture; they became "tillers of the ground." Public religion began at a *place* of worship, and then civil government is mentioned as people multiplied. Emigration began, as always, from disagreement or discontent, and urban life began as there came to be different *centres* of population. True nomadic life followed the growth of population and the necessity of wandering from place to place to feed the flocks, a place to go from as well as a place to come to. And, last of all in the order of development, the arts and crafts of the world were given by those progenitors, Jubal and Tubal Cain.

Only upon the background of this man of antiquity, with all his sins and blunders, is it possible to sketch the rate of progress in the development of civilization which is to be dated from the time this unskilled man was placed in an untouched world down to the place where history receives him and gives us definite account of him, so that there we may be able to find him and give some approximate estimate of the real antiquity of man.

II. The Date to which the Antiquity of Man Reaches.

The determination of dates in antiquity is still very uncertain and indefinite. Chronologers are fond of a great appearance of positive information in their lists of dates, and oft times give an appearance of exactness that does not really exist. In Egyptian chronology there is a great deal of assurance given us that is pure assurance on the part of the chronologer, however indignantly they repudiate this idea; the fact is that between the dates given by the principal chronologers there is a difference of the small matter of *about two millenniums*! A trifle like that may not trouble the chronologers, each of which is confident the mistake is altogether in the dates of the other, but it is, to say the least, rather disconcerting to the ordinary reader. Of course, the time when Lepsium tentatively, for mere convenience in reference, estimated Egyptian chronology three reigns to a century is past, though it is but a few years since his list of dates was still given in quotations.

Similar uncertainties, or at least indefiniteness, exists in the Assyro-Babylonian chronology, as when, in the excavations at Nippur, a pavement, the date of which was known, was taken as a base line, measurements made down to another pavement,

whose date was unknown, and the rule of three made to do the rest! As though cities were destroyed at regular intervals and always left a determinable amount of debris!

As the distinguished Professor Morris Jastow, Jr., urged a few years ago at a meeting of the American Oriental Society, there is still a vast deal of uncertainty in early Babylonian dates, especially in the Sumerian period, and archæologists ought to keep before the reading public this indefiniteness a good deal more than they are wont to do. Back of the time of the Eponym calendar (912–647 B.C.) this uncertainty reigns, and dates are being changed from year to year like money over a gaming table. Even the Eponym calendar is not entirely above suspicion, as such scholars as Halevey do not permit us to forget.

Now this uncertainty concerning dates B.C. does not impugn the trustworthiness of ancient documents; it shows simply that when we get back to the age when they had neither clocks nor calendars, and so did not reckon primarily by the flight of time, but by events, we have come to the place where our method of counting every moment of time whether anything happened or not, and that by astronomical time with mathematical exactness does not apply at all. Except for a few events like eclipses, whose *interval of recurrence* may be calculated, though the particular occurrence may not be known, there is no reliable way of applying our chronology to the ancient world.

By the various incidental means of comparison of events, dates may be made out with some fair degree of reliability back as far as the time of Abraham, at which point the most candid chronologers are now disposed to stop. Beyond that time we know nothing of exact dates, and may only be guided vaguely by various considerations which the historical imagination is able to use and which will now be passed in review.

The genealogical lists of Genesis which were formerly much relied upon as a basis for chronology and are still sometimes thrust forward as reliable criteria, are yet now well known to be a mere quicksand which may swallow up the luckless venturer in inextricable depths. Genealogies were intended to give the line of descent, but were never intended to be used as a basis of chronology. The best evidence of this is that the Biblical writers never so used genealogies. Additional evidence is supplied by the examination of a few of the genealogies given. The genealogy of Moses (Num. xxvi, 59) presents three generations from Levi to cover a period of 430 years! During which time the Israelites

had increased by so many generations that they had become to the Egyptians an ominous menace. Evidently all the steps in the genealogy of Moses are not given. The same thing appears in the fact that Kohath, the grandfather of Moses, if we are to suppose that all the steps in the descent are given, had 8,600 male descendants, more than 17,000 descendants altogether during the life-time of Moses! The genealogy of our Lord in Matthew, fourteen and fourteen and fourteen generations from Abraham to David, to the exile, and to the birth of Christ, requires about 70 years, 30 years, and 45 years, respectively, to a generation! The manifest incompleteness of the steps in the genealogy is further corroborated and explained when we examine the genealogy given in Chronicles, where some persons are actually mentioned whose names are omitted from the genealogy in Matthew. The moral element which so often enters into Old Testament chronology appears when we discover that these persons, dropped out by Matthew, were descendants of the detested Athaliah.

Genealogies were only intended to give the line of descent; they touched the mountain tops, the valleys were passed over. This is exactly in accord with the usage of the Hebrew in the employment of terms of descent. "To beget," "to bear," "father," "son," "mother," "daughter" do not ever require us to understand immediate descent. Whether or not it be immediate or remote must always be determined by independent evidence, and may not be determinable at all. They "begat children and children's children" (Deut. iv, 25). The wives of Jacob are described as bearing to him both children and grandchildren (Gen. xlvii, 16–18). Sarah is described as "bearing" the people of Isaiah's time (Isa. li, 2). "To beget" a son meant nothing more than the going off of a line of descent in which that son sometime appeared, it might be at the second, or at the forty-second removal. Thus the genealogical table in Genesis (chap. v) which reads that so-and-so lived so many years and begat so-and-so means nothing more than that one great leader of the antediluvian world lived so many years at which time went off the line of descent in which appeared, at some undetermined remove, the next great leader. Any attempt to add together these figures and get chronology is utterly futile. These facts briefly presented here were elaborately worked out by Professor William Henry Green in *Bibliotheca Sacra* (April, 1890). The way in which they are ignored by those who would

make out that the chronology of the Old Testament is utterly untrustworthy would be much more creditable to ignorance than to intention.

The fact is that the Bible leaves the date of the antiquity of man an open question. We are at liberty, at the same time that we hold strictly to the trustworthiness of the Biblical record, to accept any *established* date, but not mere speculative guesses. A geologist recently said, "When we are guessing, it is as easy to guess a million years as to guess a century."

III. Hints in the Genesis Record concerning the Antiquity of Man.

We come now to the consideration of certain facts and hints in the Genesis record which the historical imagination is able to use with telling effect in gaining some more or less vague idea of the antiquity of man. Here also we shall see the value of the information which we have first set before us concerning the man of antiquity.

The Bible gives us some internal indication of the lapse of great stretches of time. We have seen that the list of antediluvian worthies is quite capable of stretching out to almost illimitable periods of time; that, in fact, this list only touches the mountain tops of biography; how wide may be the intervening valleys we can no more tell than can we estimate the valley that lies between two mountain ranges which rise up before us one behind the other.

The Egyptians have a kind of fabulous history, a reign of the gods, which corresponds to this reign of the antediluvian worthies. However, the names in Egyptian give us no clue whatever. On the other hand, the Babylonians have a list of heroes who reigned 36,000 years. Here the list is most illuminating. Professor Clay has shown that this Babylonian list of fabulous heroes is practically the same, name for name, as the list of Old Testament worthies. The Babylonians give prodigious scope to imagination in the length of the reign of these worthies. While little or no dependence may be placed upon the number of years, it is evident they represent the tradition of a great flight of time in the early history of the world.

Then the character of the ark built in Noah's time calls for a long and tedious development of civilization. From the first

rude floating craft, a round or hollow log, it is a far cry to the craftsmanship and engineering ability displayed in the erection of such a craft as the ark. In the postdiluvian period, development lagged far behind this ; even in the great days of Phœnician and Roman seamanship no such craft was produced ; nor did those master builders, the Venetians and Genoese, nor after them, the Portuguese nor Dutch, give anything to the world approaching the ark. Indeed, modern shipbuilding never exceeded the work of Noah until the marvellous genius, 50 years in advance of his own time, who produced the " Great Eastern," gave to the world that anticipation of the present-day floating palaces that cross the ocean. It is now known in ship architecture that the proportions of the ark are exactly the proportions required for the greatest steadiness combined with largest carrying capacity. In very fact not only the proportions, but the dimensions, of the ark were almost exactly those of the great battleship " Oregon," queen of the seas of a generation ago, Such an achievement in naval architecture as the ark calls for a long period of the growth of civilization in the antediluvian age, and such an extent of great populations as could not have come about in one or two millenniums.

Then the progress of populating the world and the rise of civilization, now being so exactly confirmed as recorded in the Bible in the 10th chapter of Genesis, calls for a lapse of time that is appalling before we come down even to the first pilgrim father Abraham on what is to us the horizon of history. A few minutes spent in tracing the streams of migration and growth of empire, delineated in that table of nations, will convince the most sceptical of this. The descendants of Ham are represented as the first to spread out, the time of which movement must itself have been a long while after the Deluge. When would they begin to spread out ? Certainly not until populations began to crowd upon each other. For how long a period in an empty world would not people cling together and only, when necessity or the demands of comfort or some disruption in society came about, would migrations begin ? Indeed, disagreements or necessities are almost invariably the sources of migration. Centrifugal tendencies in population are literally a throwing off. The centripetal force in human society, gregariousness, is most natural until superseded by something that drives people apart, as strife and conflict, or the growth of numbers beyond the available food supply, or the unsuitability

of the dwelling place. Such a growth of populations starting from a very few people after the Deluge supposes long stretches of quietness at the old home until some self-interest caused a part of them to wander about. Then the descendants of Ham moved southward, manifestly following the course of least resistance ; in other words, seeking a warmer climate. We are told they occupied Canaan—that is, Canaan was a son of Ham—and anthropological discoverers in Palestine certify that the aborigines of that land were not Semites like those who succeeded them. In time—and how long a time must it have been before in this new land conditions could again arise for spreading out further ?—but in time, again, some necessities of existence became a new centrifugal force that expended itself still further in the easiest direction, southward, and Cush became a son of Canaan. And so southern Arabia and north-eastern Africa were populated. Here, in this vast region, again through untold generations, population grew and spread out. It was hot enough now ; the centrifugal force would expand itself laterally, and history, as we find it recorded, followed exactly these lines. How many generations would it require for the population to creep along the Arabian coast around to what we now call the Persian Gulf, to the mouth of the Euphrates, there to establish a new centre where should arise a great civilization on the far horizon of which at last arose Nimrod, the son of Cush, and became the father of the first historic civilization—that is to say, the first in history, whether or not it was the first in existence ?

The dynastic Egyptians are variously placed in antiquity, reaching back either to 4,000 or to 6,000 years B.C. But these dynastic Egyptians, whenever they appeared, came down the river from the land of Punt. They were of the same sons of Cush who had gone around the Arabian coast and early populated the Babylonian plain. They are identified not only by the historical record in Genesis, set beside the dynastic history of the Egyptians, but we have the pictures both of the people of the land of Punt and the early Sumerians of that Nimrod people. They are the same, with unmistakable distinguishing peculiarities.

Now all this tracing of the movements of populations has shoved the horizon of civilization farther and farther back, and still it is always and only the horizon of *civilization*, a civilization with arts and crafts far removed from anything primitive,

removed by uncounted generations from the time when an unskilled man was placed in an untouched world; for it is not only the progress of the postdiluvians who inherited the antediluvian civilization which we have to deal with, but the progress of the antediluvian world up to that point from the most primitive beginning. Under the inspiration of a great revelation, and the guidance of the Holy Spirit now given, "Who leads us into all truth," the world has progressed very rapidly; yet, even so, 2,000 years have been required for the growth of the present-day civilization. How much less rapid was probably the world's progress before the fullness of time for this progress came?

One other consideration demands our attention. All modern tracing of lines of migration as well as modern indications of philological research point toward there being originally but a single starting point for the race. The supposition has at times gained considerable credence, as already noted, that the account in Genesis is only the account of a sample creation and dispersion, and not meant to be the story of the only one. But scientific research, both ethnological and philological, points to the truth of the words of Scripture that God has "made of one blood all men to dwell upon the face of the earth." Thus all the antiquities now known in Egypt and Babylonia, all the prodigious remains of the Maya country and the marvels of Chican-Itza, even the strange antiquities of the Mediterranean basin and the islands of the Pacific, point to the stupendous antiquity of man even since the days of Noah. In presence of the original antiquity of man before the Flood, imagination flags.

Discussion.

The Chairman said that it was necessary for speakers to confine themselves to the subject of the paper, and not to be tempted to the side issues of evolution and its kindred aspects.

The object of the writer was to prove the great antiquity of man, and the Biblical record did not deny this fact but confirmed it. The author, in a clear and convincing way, set forth the proofs that it was not possible to give a date in so many years at which man

appeared on the earth. He (the Chairman), as a geologist, had long been persuaded that man appeared as long ago as Pleistocene times, a period so remote that it could only be estimated in the same way that we estimate geologic time.

In that part of the paper which referred to Adam naming the animals in the Garden of Eden, he was reminded that the famous thirteenth century "Bestiary" preserved at Westminster Abbey, in relating this event, said that "whatsoever Adam called it, that was the name and *the nature* thereof."

Lieut.-Colonel MOLONY said: I am very glad that we need not defend the date for the creation of Adam given in the margin of some of our Bibles, and called Archbishop Usher's chronology, I believe. The subject of the antiquity of man is exciting great interest at Cambridge, and those who have studied it are convinced that the time of man's first appearance must be much more than 6,000 years ago.

I only propose to criticize one very minor point in the paper—about Noah's ark. As a boy I noticed that all the toy arks in the shops must inevitably capsize if put in the water. So I was very pleased to note that if an ark were made according to the dimensions given in Scripture it would not capsize. For its breadth was to be 50 cubits against a height of 30. The author reminds us that the dimensions of the ark are those of a pre-dreadnought battleship. But then he says they are the proportions required for "the greatest steadiness combined with largest carrying capacity." This is not quite correct, because the battleship has to be forced through the water, whereas the ark was only to float about. Its carrying capacity would have been greater if made nearer circular. But probably its width was limited by the largest beams Noah could procure, it being clearly desirable that one beam, or at most two scarfed together, should stretch right across. In any case the dimensions given for the ark in Scripture are perfectly credible.

Mr. W. HOSTE said: No one could listen to the paper without being impressed by its reasoned vindication of the Genesis account of primitive man, of the test imposed on him, of the origins of language, etc., in contrast with the anachronistic notions of the

Modernists. The arguments of the main thesis seem less convincing. Surely the distinction must be emphasized between those genealogies which only profess to give outstanding names necessary to prove their genuineness, and those which give chronological details, as in Gen. xi.

Dr. Kyle's explanation on p. 134 seems to leave things where they were, for the ages of the fathers hold equally good, whether the birth is of " a son," as the Bible states, or of some "great teacher," as he suggests, and the totals remain unchanged.

There are, of course, some elements of uncertainty : *e.g.*, in Gen. v, 32, and xi, 26, where the sons of Noah and Terah are respectively said to have been born in the same year, which we know was not the case : *e.g.*, Abraham was sixty years the junior of his eldest brother. This is only in the case of the direct line of Christ ; then the Messianic ancestor, as Shem or Abraham, gets the first-born's place. But these seem the exception, and hold out a very slender margin of relief to those in need of it. Certainly, as the lecturer points out, the opponents of Biblical chronology deal out their millenniums with no niggard hand ; they juggle with myriads of years as the evolutionist with his millions.

As to Dr. Kyle's reference to Prof. Clay at bottom of p. 135,* I understood this latter, in his recent paper before the Institute, instead of claiming identity between Babylonish heroes and Old Testament worthies, to question any such identity, and to treat the idea as a *reductio ad absurdum*. As for the ark (p. 135), certainly there are many " means " between it and a dug-out, but its extraordinary character is sufficiently accounted for by the fact that God was the Architect, and He who gave the specifications no doubt gave the ability to carry them out, otherwise we must suppose one Noah to receive dimensions and whole generations of Noahs to evolve the skill to build the ark, which is absurd.

As for the vast periods Dr. Kyle predicates for the spread of ancient peoples along the lines he enumerates, may not the natural process have been much quicker in an empty than in a full world ? Were Europe unoccupied to-day, it would not take long for large

---

* " Early Civilization of Amurru," p. 99. " The names found in the Hebrew lists are quite independent of those found in the Babylonian lists."

tracts to be overrun. Nomad races especially are like sheep, outrunning one another for often imaginary advantages; and there was in those days a determining factor, which exists no longer in the same sense to-day. "The Lord scattered them."

Even admitting that we owe the civilization of to-day to the guidance of the Holy Spirit, it is hardly correct to say that it is the product of a 2,000 years' evolution. That is to forget the long centuries of stagnation in the Christian era. Indeed, the advance, out of all proportion, of the last few decades would rather argue that when the hour strikes for a great development it happens in a surprisingly brief space of time.

Mr. SIDNEY COLLETT said: Mr. Chairman, not having seen the paper until to-day, I have only one or two remarks to make upon its contents, but they touch upon important points in the lecture.

First, I must protest against the lecturer's description of Adam, on p. 128, as "an unskilled man" who had been put into the Garden of Eden to do certain things, but "had done nothing". Had the lecturer been present, I should have liked to ask him his authority for making such a statement. Surely, if, as the Scriptures state, God made Adam *in His own image* and *after His likeness* (Gen. i, 26); and if Adam, with the rest of creation, was declared by God to be *very good*, there seems to be no escaping the conclusion that he must have been just the opposite of an *un*skilled man!

Then, on p. 136, he tells us that "the character of the ark calls for a long and tedious development of civilization . . . as could not have come about in one or two millenniums."

But here again he seems to forget that the ark was not apparently built by the wisdom or skill of man, but by direct instructions from God (Gen. vi. 14–16), who can well dispense with the natural time required for man to acquire the art of shipbuilding. Just as when our Lord would feed 5,000 men (John vi, 11) He produced the necessary loaves, without waiting for the wheat to grow, or the grain to be ground into flour, or the oven to bake it. It is unfortunate that the Divine side of these things is too often overlooked.

Mr. THEODORE ROBERTS thought Mr. Collett hardly recognized that the Divine direction for the ark only concerned measurements,

and therefore the lecturer appeared to be correct in suggesting that a development of civilization was necessary for its building.

He pointed out that according to the true text of Acts xvii, 26, the word " blood " is omitted, which makes the headship of Adam the more clearly affirmed. So far, however, from man having evolved from savagedom, he had always regarded the barbarian as the truant child of civilization, and instanced the Australian aborigines, who were held by investigators to be an ancient branch of the human race.

He recalled how so acute and well-informed a man as the late Mr. Gladstone, in his correspondence with Lord Acton, felt compelled to surrender the apostle Paul's accuracy and consequent inspiration in saying that death entered the world through man's sin (Rom. v, 12), in view of the earlier fossil remains of animals, whereas the apostle's deduction, that " so death passed upon all men," proved that he was only referring to the death of man. Adam must have been cognizant of the death of animals, or he could not have understood the penalty of death which God attached to His prohibition. Mr. Roberts believed this was physical death, and in this disagreed with the lecturer.

He agreed with the lecturer's explanation of the meaning of the terms " beget," etc., and pointed out how this reconciled the two pedigrees of our Lord given in the Gospels. Just as we should trace our King's natural descent from George III through Edward, Duke of Kent, but his legal one through George IV and William IV, so he believed Matthew gave us the legal pedigree of heirship to David's throne, while Luke the actual one, both culminating in Joseph, to whom our Lord was legal heir, having been born during Joseph's lawful wedlock with Mary.

Mr. WILLIAM C. EDWARDS said : Whilst much of the paper gives food for thought and seems quite consonant with the views of most of us here, there are some points which do not seem to fit in with what I regard as the orthodox views regarding the mental capacity and vast abilities of our unfallen progenitor, Adam.

We can hardly imagine, I think, the magnificent capacity of the mind and body of Adam—unspoilt by sin and unweakened by the diseases which sin brings. The nascent glory of that masterpiece to that creation of the Almighty is quite beyond our imagination.

Presuming that the language of Eden was something akin to Hebrew and Welsh, it might not be a bad plan to persuade some philologist to draw up a minimum Hebrew vocabulary and see how that and its roots might by combinations have been used by Adam and his descendants.

Hebraists tell us that the possible combinations of Hebrew roots are indeed wonderful. The word that occurs to me at the moment is that of "comfort," which is said to be "to sigh with." Just the sort of word that might have come from one who before the Fall knew not any sorrow, to whom sighs were unknown, but came to need comfort and to coin a word for it.

I see no necessity to suppose any childishness about Adam. He was a perfect man in mind and body, but ignorant of evil as far as it differed from good (Rom. xvi, 19). *Mens sana in corpore sano.* He would have been intellectually equal to solving any problems that came before him. I believe that mentally in all departments he was perfect—just perfect, and more we cannot say.

Nowadays we mortals are possibly strong on one or two points, but weak in twenty or thirty others. Adam was strong upon all points.

Reference has been made to the temptation story, and I seldom hear it referred to without a desire to say something upon that great subject. Surely the teaching of that unhappy event is comparatively simple; it was the first battle between the fleshly appetites and mind, the conflict that Paul refers to in Rom. vii, 14–24. Alas, in that fatal conflict the flesh won! Adam fell, and we his descendants fell with him. I believe that, properly analysed, every temptation is at the fountain-head a fight of the flesh against the spirit.

The drunkard is one whose body—saturated with alcohol—calls incessantly for more drink, and so insistently that the flesh conquers every time. The lustful and vicious are men and women whose fleshly appetites and passions have overcome the will and paralysed all spiritual volitions.

Concerning the dispersion of the sons of Noah, if a person will in imagination stand upon the slopes of Mount Ararat and think out Gen. x, they will, I think, find that the streams of emigration were alongside great rivers.

I once took three crayons: red, for the descendants of Shem; black, for the children of Ham; and blue, for those of Japheth. I then tried to place the names of Gen. x, with interesting results. I came to a conclusion that the land called Canaan was probably a part of the donation to the sons of Shem and *not* to Canaan or the sons of Ham.

Gen. x, xi, seems to point to something that began a long series of recurrent wars, Ham and his descendants trying to occupy and plunder the lands that were the birthrights of the sons of Shem. This reminds me of those centuries of wars between France and Germany, that seem to have been begun by one Orgetorix, as described by Julius Cæsar in his *Gallic Wars*, bk. I, chap. 2–5.

Mr. AVARY H. FORBES said: Man is not provided with fur or feathers or anything to protect him from the cold. May we not argue from this, that the climate of Paradise was, as Milton puts it, where "spring perpetual smiled on earth with verdant flowers" (*Paradise Lost*, X, 679)? Shakspere has the same thought in *As You Like It*, where the Duke, in the Forest of Arden, says: "Here feel we not the penalty of Adam—the season's difference." ["But," for "not," is another reading; but that does not affect the argument.] Man in Paradise needed no clothing, as he knew nothing of shame or indecency; so neither did he need any against the weather, as there was no inclemency in it. It would even seem that we have inherited a relic of this immunity. An ancient Greek king, riding by in winter, stopped to commiserate a half-naked beggar. "How can you possibly stand the cold?" asked the king. "Does your face stand it?" said the beggar. "Well, yes; but no other part of my body could." "Well, I'm *all* face," returned the other. This points to a very remarkable fact, for it is surely by a special Providence that the face, which includes (in the under-lip) the most sensitive part of the skin, can stand cold such as the coarsest parts of the body—the hands and the feet—cannot withstand?

By the way, how does the lecturer know that man in Paradise "did nothing to subdue the earth, or keep the Garden in order," or "had not put his capabilities into exercise"? For aught we are told, he might have been at work there for years before the Fall.

Colonel H. BIDDULPH, C.M.G., D.S.O., writes: Does not Dr. Kyle, on pp. 130 and 131 of his valuable paper, assume that the temptation of Adam was the same as that of Eve? The Bible record appears to me to make a most definite distinction, and to show that Adam's temptation was of a more complex and subtle character. Eve's temptation was as described by Dr. Kyle; being deceived, she was in the transgression, but Adam was not deceived (1 Tim. ii, 14). The simple, primitive temptation deceived Eve, whose spiritual perceptions perhaps were not on the same level as those of Adam. Eve having transgressed and fallen before Adam, the temptation presented to Adam was God's companionship without Eve's, or Eve's companionship at all costs. Was he to revert to his former condition or not? Here we see the devilish subtlety of the temptation of Adam, for God Himself had said: "It is not good that the man should be alone" (Gen. ii, 18). It is difficult to imagine a more cruel temptation for the man; and, unlike Eve, he sinned with his eyes open.

Further, with reference to the statement on p. 133: "The genealogy of Moses presents three generations from Levi to cover a period of 430 years," it should be noted that the Samaritan Pentateuch (with which the Septuagint is in substantial agreement here) reads in Exodus xii, 40: "Now the sojourning of the children of Israel and of their fathers, which they dwelt in the Land of Canaan and in the Land of Egypt was 430 years"; a statement which is supported by the Palestine Targum on this passage: "Now the days of the sojourning of the children of Israel in Egypt were 30 weeks of years, which is the sum of 210 years, for the number of 430 years was since the Lord spake to Abraham in the hour that He spake with him on the 15th of Nisan, between the divided parts (Gen. xv, 9–18) until the day that they went out of Egypt."

The AUTHOR'S reply: Referring to Mr. Collett's remarks he said:—"That skill is an attainment that comes from practice, but as this 'primitive' man was the very first man at the very beginning, who had not yet practised, he could not be otherwise than unskilled."

676TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, APRIL 6TH, 1925, AT 4.30 P.M.

DR. JAMES W. THIRTLE, M.R.A.S., F.R.G.S., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed, and signed, and the HON. SECRETARY announced the Election of B. W. Matthews, Esq., as an Associate.

The CHAIRMAN then introduced Dr. Edwin L. Ash, to read his paper on "Psychotherapy."

PSYCHOTHERAPY.

By EDWIN L. ASH, Esq., M.D.

THE human Self results from the persistent action and interaction of various forces, including—

The primal CREATIVE IMPULSE;
The inherent impulse of GROWTH;
The influence of MIND;
The inertia of MATTER;
HEAT;
LIGHT;
ELECTRICITY;
Undefined PSYCHIC INFLUENCES;
Undefined PHYSICAL INFLUENCES acting on our Planet.

There is a balance of these forces set up, so that some uniformity of vibration is secured within fairly wide limits. When the balance is such that there is *harmony* of vibration, *the individual* usually "*feels well.*" When there is disharmony, *the individual* may "*feel ill.*"

The experience of Self at any moment depends on consciousness and various impressions coming to consciousness from (1) the body, (2) sub-consciousness. Nevertheless, however much we appear as Mind-Body combinations in the everyday world of physical relationships, *our entire experience is essentially mental.*

It is the translation of physical impressions into ideas and "thoughts" about things that gives us all our knowledge of what is going on.

But the Self is not, or need not be, a passive soul meekly registering impressions and accepting fate.

The individual has certain active mental powers, among them "*will.*"

You and I are not only able to say "*I am*"; we can say "*I will,*" and by means of the mental and physical machinery evolution has placed at our disposal, we are also able to say "*I can.*"

To put it the other way round, the Self finds itself not only possessed of certain *means,* commonly called mind and body, *but* finds itself in possession of *an active agent for their use—will.*

The whole question of using mind-power *turns on the ability to use the will. It is by "will" that one turns one's attention this way or that.*

You use your *will* to direct your thoughts to whatever end you desire.

Even if you want to bring *imagination* into play, you do so by an effort of *will* to give the process of imagining a start. When you wish to stop *imagining,* you use *will* to do so.

It is, of course, a bad thing to let your imagination run outside the *control* of your *will.* Directed by *will,* imagination can be a useful servant; uncontrolled, it is apt to cause trouble.

By exercise of *will* to direct thought in particular ways, we are able to overcome many disabilities; obtain poise and peace of mind; become more efficient in our work and so more successful; improve our nerve-power and mental strength; prevent a host of nervous troubles; cast out fear; secure better health; be happier, and more comfortably adjusted to life.

The infant is conscious of *I will* before *I am*; the adult is commonly conscious of *I am* before *I will.* The infant comes into full consciousness as if awakening out of ordinary sleep; it is aware of things outside itself before it is aware of itself as

a separate being. It wants to touch things outside itself; it mentally says "*I will*" to them before it is conscious of its individual existence.

I will and *I am* are the foundation of our whole human mind-life. As a child grows up its sense of *I will* and *I am* both develop. Where strength and vitality are prominent, then *I will* dominates individual mentality.

I will and *I am* together are the basis of *Self*.

Too great a sense of *I am* with weakness in the sense of *I will* is a foundation for nervous breakdown and mental disorder. Too great a sense of *I will* may lead to physical breakdown. Harmony in the balance between the two makes for health, peace of mind, and success.

Will is the moving force in human activity; it can be trained and developed to a remarkable degree.

The methods in use for exercising the Human Mind curatively are: SUGGESTION, AUTO-SUGGESTION, PSYCHO-ANALYSIS, the general term PSYCHOTHERAPY conveniently covering the whole field of Mind-Cure.

At first sight the very idea of such a thing as Psychotherapy or Mind-Healing seems to controvert all common sense and the familiar scientific principles.

There seems no reasonable connection between *what one person is thinking and what another person is suffering*. Can it be possible that whilst *you* are suffering from influenza, mental depression, rheumatism, appendicitis or indigestion, or anything else, someone else can really influence your bodily condition for better or for worse by any process of thought unaided by physical remedies? Yet this is the claim of Psychotherapy, in effect! Mind-Cure either can exert an influence, or it cannot. This issue cannot be shirked.

Nature of Mind-Body Action.

The inquiry necessitates an early consideration of Mind-Body action in any form—that is, of *physical results* following *mental action*. Whenever we translate our sense of *I will* into physical action, we illustrate a definite Mind-Body effect.

Thus, I hold out my hand. My sense of *I will* has come into play and translated the wish to hold out my hand into action; and to do this, changes of a chemical, physical, and electrical nature have been carried out in a number of brain cells, spinal cord cells, nerve cells, and muscle cells.

Every voluntary action of daily life represents a mental conception translated by *will* into physical result and change. It is a definite Mind-Body result ; it illustrates *thought* influencing *matter*.

Mind-Body Action.

And what is the point of contact between *Mind* and *Body* in these examples ? One can answer—*Brain*. It is as certain as anything we know in Physiology that the point of action of Mind and Body is to be found in the cells of the Brain.

It is not difficult then to find a reasonable basis for understanding something of the nature of Mind-Body action in ourselves. And it is not a big step on to imagine that such an effect may not occur only in regard to simple voluntary action, but that by *will* one may perhaps influence physical conditions in favour of health. Thus it might have been supposed that *Mental Self-Treatment* would have been the first step in Psychotherapy.

The ready demonstration of individual *will* over bodily processes might well have led quickly to the idea that one might readily use the same mental power to influence one's health. But history shows that this has not been the case. On the contrary, we know that what has most forcibly struck men's imagination in the past in the matter of mental healing has been the influence exerted by the mind of someone else over sick people. In the records of Mind-Healing one finds very little about self-help until comparatively recently ; most of the story is concerned with the remarkable way in which particular persons have used their mental powers to heal those who have come to them in trust and confidence.

Self-healing methods are almost entirely of modern production. But for some three thousand years there has been a continuous record of the marvellous things accomplished by the exponents of various schools of mental-healing. And it is interesting to note that there never seems to have been a time in which the claims of Mind-Cure have not been put forward by someone.

One can trace the course of mental-healing from the times of ancient Greece and Rome through the Middle Ages down to our own period. It is even said that in some of the oldest Egyptian scrolls there are figures representing the work of the psychotherapist of that remote time.

The Sub-Conscious Mind.

Two circumstances finally brought the whole question of Psychotherapy within the boundaries of modern science : (1) the conception of the Sub-Conscious Mind ; (2) the discovery of Suggestion as an important mental process.

During the last twenty-five years or so there have been developments which have thrown a great deal of light upon the problems of psychology, and have come near to an understanding of some of the phases of the active mind of man. Thus we know for certain that our waking consciousness, which tells us that we are living and thinking beings, is but a small part of the whole field of mental-life. We know that there is a sub-conscious mental-life, the workings of which can profoundly affect not only the psychic but the organic functions. This *Sub-Conscious Mind*, as it has been called, is revealed by the phenomena of somnambulism and double personality, as well as by various processes of thought that we know to have been carried out without our having had any conscious knowledge of them. On the one hand, this sub-conscious part of mental-life—this subliminal thought-action—touches the ordinary waking consciousness ; on the other, it seems to reach away to regions and contacts of which we have no sure knowledge.

Dreams may also be taken as evidence of sub-conscious mental action ; also the memorizing of scenes, quotations, speeches, and so forth to which we have never paid any conscious attention. Whilst when the waking consciousness is hushed into abeyance by the processes of hypnotism, sub-consciousness reveals itself as a storehouse of memories and impressions that have become lost to conscious memory.

I could easily digress into the fascinating fields of speculation opened up by the theory of the Sub-Conscious Mind, and touch upon questions of psychic phenomena, multiple-personality, hysteria and telepathy for example : but all these, although relevant to my subject, are far from the main issue to which I must necessarily confine myself. So let me say at once that from the point of view of Psychotherapy interest in sub-consciousness mainly centres in two things :

(1) Its capacity for storing lost memories.
(2) Its ready acceptance of Suggestion.

It is sub-consciousness, not conscious thought, which we have to reach in successful Psychotherapy whether we use Suggestion, Auto-Suggestion, or Psycho-Analysis.

Suggestion.—Briefly, one may define *Suggestion* as that process by which thoughts and ideas are presented to and accepted by the human mind, irrespective of reasoning or conscious attention.

The condition which makes it possible for *Suggestion* to take effect is conveniently known as *Suggestibility*, and it is important to note that *Suggestibility* is a normal characteristic of the normal individual. It varies in degree very much, of course, but the important point is *that we all quite normally exhibit some degree of "Suggestibility."*

The demonstration of Suggestion and Suggestibility made it easy to understand how the influence of a strong personality might be used as a curative agent, because it indicated a way in which the curative influence could be transferred, namely, by *ideas*.

No longer was it necessary to postulate "magnetic fluids" such as Mesmer and his school had claimed to use; no longer was it meet to believe in any kind of mysterious hypnotic influence: it became clear that the crux of all mind-healing was to be found in the bringing about of a change in the thought of the sick person to be cured.

Considered from the simplest point of view, Suggestion may best be defined as the insinuation of an idea into the mind; and it is obvious that of many ways in which an idea can be implanted in anyone's mind, the most powerful is by the direct method of verbal expression.

Thus, a man might glance out of a window and note that the sky was overcast; this would give rise to the idea that possibly it was going to rain, that is, it would act as a "suggestion" of a possible storm. But this new idea would be of little intensity and would quickly vanish under ordinary circumstances. Suppose now that a friend enters and says, "It is going to rain, the sky looks very black"; then the idea of an oncoming storm becomes much more potent, and definitely arrests the attention of the individual addressed. Again, a person for some reason may have the idea that he is going to be ill—possibly this has been suggested to him by a feeling of lassitude; but he may dismiss it from his thoughts, and occupy himself with other things. On the other hand, suppose he has met a friend who has remarked with emphasis, "Hello! you *do* look ill." Then the ideas of actual illness would have become much more intense, so that the associated idea of treatment or of consulting a doctor would soon present itself.

Certainly in everyday life the influence of Suggestion, both direct and indirect, makes itself felt to an enormous extent. And, chiefly because no idea of any intensity will exist alone, it of necessity in turn " suggests " other ideas which are said to be " associated " in reference to the original idea. Thus at certain times a feeling of hunger suggests the necessity of a meal ; a similar idea may be originated by the sight or smell of palatable food, and in turn these ideas start in the mind a host of other ideas associated with them. It is well known how individuals associate certain ideas ; for example, many people object to the smell of certain flowers because they associate them with funerals. Indeed, the very basis of memory itself appears to be the power of associating ideas.

The key-note of a diplomatic triumph is usually, if not always, Suggestion. Gradually leading up to a desired objective by an association of ideas in the mind of his opponent, one man tries to get the better of another. The one who is most adroit in the methods of insinuating the necessary ideas is the victor in the mental struggle. This is what is popularly known as a contest of " wills."

In particular conditions Suggestion acts very much more strongly than at other times ; thus one very *important difference between a person in hypnosis and the same person in the normal state is that he is peculiarly responsive to Suggestion.* He may be quite conscious of his surroundings and of all that is going on, but he will respond to Suggestion in a way that he does not at ordinary times. One says to a friend, suddenly : " You cannot move your left arm ! " He laughs, and shows that he can. If he be hypnotized and the same statement made, it will be found that *he cannot move his arm.* And so much does this increased response to Suggestion distinguish hypnosis from the normal, that Bernheim proposed to indicate the condition by the expression " a state of Suggestibility."

In a word, the mental mechanism of the action of direct Suggestion is as follows : In the usual way ideas keep running through the human mind, crowding each other out, and, of course, drowning any idea suggested from without unless the latter happens to be presented with exceptional force. But when one is soothed and quieted by appropriate means there are fewer intrinsic ideas to interfere with the suggestions given, and the latter may be made to take up a dominant position. Just as an orator is unable to make much impression on a gathering of

talkative people, whose voices drown his and prevent his remarks from having any weight, but when the audience is quieted his words and ideas gradually become dominant, and duly impress those who hear them. For the purpose of comparison we may consider the psychological doctor to be the orator and the talkative audience to represent the restless, active thoughts of his patients, which tend to prevent him implanting the requisite curative suggestions in the minds of the latter.

The scope of Suggestion is extremely wide, and I certainly agree with Bernheim's expression of opinion that Suggestion is always beneficial, even where it cannot cure. I am confident that it is Suggestion that has turned the scale in favour of many cases that would otherwise have died or lost their reason.

Medical men who have realized the importance of this principle have been astonished at the greater benefits they have obtained from routine treatment, from acting up to this knowledge; astonished to see how nervous symptoms retarding recovery have cleared up; how aches and pains have disappeared; and how weight has been put on even in apparently hopeless cases of wasting disease—*all because tactful suggestion has helped the weakened brain and nerve centres to resume activity, and send out the all-powerful nerve-force that tones up and nourishes the tissues and organs.*

Suggestion is the only hope of thousands of people broken down by worry or born with unstable nervous systems; it can save thousands from the asylum; it can turn the scale in favour of life in diseases as deadly as consumption; it can unquestionably prolong life in some cases of advanced cancer, and other insidious disorders. Suggestion will by itself in many cases remove dangerous conditions threatening middle age, and it will act as a balm to the jaded worker on the threshold of serious mental or nervous breakdown, by giving him sleep, soothing his tired nerves and restoring his confidence in himself.

This is the action of Suggestion from the purely material point of view, regarded as the acceptance of one mind of a definite idea presented to it by the conversation of another person.

But the fact that Suggestion can be used on a purely mental plane, without reference to spiritual influences, does not negative the possibility of what we understand as extraneous psychical or spiritual intervention in the case of disease. A possible explanation of many so-called "miracles" is to be found in Suggestion,

though may it not at times represent the medium through which a Higher Mind influences the bodily health of suffering mankind ?

Clearly, there are great possibilities in the theory of Suggestion of explaining many phenomena which appear at first sight to have a spiritual significance ; particularly as it has been shown that not only may suggestion come from the conscious mind of one person to the sub-conscious mind of another, but that suggestion from the conscious mind of any individual may be made to and accepted by his own sub-consciousness, as just pointed out. In this latter phenomenon we see the process of *Self-Suggestion*, commonly called Auto-Suggestion. If such a process is common, we may be able to explain a whole series of hitherto mysterious circumstances on the basis of a materialistic psychology. Thus, visions seen and voices heard by saints or mystics may be explained as being due to certain ideas which have been long dwelt on in full consciousness, having been driven into the sub-conscious depths of the mind and subsequently reproduced as a form of illusion or hallucination at some future time, when the subject of the experiences is in such rapt condition that his conscious mind is more or less asleep. Certainly such an explanation *may* be given of the experiences in question. But that is not to say it has ever been successfully shown that it solves the whole problem.

Certainly when it is a question of experimental evidence, the psychologists of the materialistic school have it very much in their own way. They can perform many experiments to substantiate the action and far-reaching influences of Suggestion and Self-Suggestion, which will provide them with innumerable facts which will be accepted in any scientific court of inquiry. They can then turn to those who have idealistic views, and say : " Let us now see your evidence, first, that there is a spiritual world at all, and, secondly, that we have any possibility of getting into relation with it."

So far as medical and allied investigations have been directed to the circumstances of " faith " or other psychic factors as healing or invigorating influences, the official conclusions have been distinctly materialistic. Thus reference to the Report on Spiritual Healing, which was drawn up during July, 1911, by the Special Investigation Committee of the British Medical Association just mentioned, tells us that :—

" After carefully considering the various definitions submitted to it, and the evidence afforded by its investigations, the Sub-

Committee is of opinion that there is no difference in kind between 'Spiritual Healing,' 'Faith Healing,' 'Mental Healing,' and 'Psychic Healing.' All these forms seem to depend for their effect on what is known as Mental Suggestion."

Are we to consider that this finally settles the question as to psychic healing of all kinds being a manifestation of brain-action which is entirely material? *As a matter of fact it does not.* But it is no doubt a great advance to have been able to reduce the results of various phenomena of Psychotherapy to a common principle, and in the present state of our knowledge it is both wise and highly convenient to use the term "Suggestion" to indicate that principle.

There evidently resides in each one of us a force or agent which is capable of energizing our physical bodies and remedying our ailments to an extent that is but seldom realized. Indeed, when one has watched the working of this natural healing power for some little time, one begins to doubt if there are any limits to its possibilities. And this force is inevitably bound up with that principle which one may variously call Ego, Soul, Spirit, or Sub-Conscious Self, according to preference; it either originates in this or acts through it.

Evidently any process that conveys "Suggestion" may set in motion that natural curative mechanism. Evidently "faith" may do likewise.

It is noteworthy that eminent scientists, including Sir Wm. Barrett, Sir Oliver Lodge, and Sir Wm. Crookes, have no hesitation in admitting the possibility of there being outside influences —"forces"—capable of playing a part in our lives. Professor J. S. Macdonald, in a presidential address to the Physiological Section of the British Association at Portsmouth some years ago, pointed out that:—

"There was no scientific evidence to support or rebut the doctrine that, whilst the brain was possibly affected by influences other than those which reached it from the sense organs and from the different surfaces of the body, *it was still possible that it was an instrument traversed freely by an unknown influence which found resonance within it*; and it is clear that an instrument, shaped in the embryo by a certain set of conditions, might in course of time respond to the play of some new influence which had taken no immediate part in fashioning it."

The "unknown influence" referred to would, of course, be psychic or spiritual force. Dr. Macdonald's remarks are

interesting as showing the tendency of modern scientific thought. Those who wish to satisfy themselves as to the weaknesses of materialistic views in this connection should read Dr. Wm. McDougall's work on *Body and Mind*, in which it is shown that after every argument for and against has been exhausted, there appear to be " overwhelmingly strong reasons " for believing in the existence of the soul of man.

Moreover, surely in regard to spiritual (psychic) things we cannot neglect the intuitive evidences concerning great principles as recorded, century after century, by successive generations of the human race, such principles having been reasserted and returned to in their essentials by successive prophets and teachers.

Auto-Suggestion.—Now as to *Auto-Suggestion*, which has lately come to the front as an important and highly useful method of setting mind into curative action. Here is made use of the fact that whilst in ordinary Suggestion treatment—sometimes named Hetero-Suggestion for distinction—the suggestion is transmitted from the conscious thought of one person to sub-consciousness for another; in Auto-Suggestion, one gives one's own suggestions to sub-consciousness—one suggests to oneself; yes, but not to one's conscious thought. The secret of success in Auto-Suggestion is to set the curative force working through some process that reaches sub-consciousness. The object of the various methods in use is not to appeal to one's own reason, not to think something out, but to send a message of healing, as it were, to sub-consciousness right past one's own critical faculties. And when used scientifically and carefully the process of Auto-Suggestion is astonishingly useful and successful. Doubtless there has been some over-enthusiasm in the cause; nevertheless, when the subject is viewed dispassionately and due allowances made, it is seen that in Auto-Suggestion we have a really helpful aid to Psychotherapy, and a method that may well be developed even more successfully in the future.

Psycho-Analysis.—Having considered Suggestion and Auto-Suggestion, I come to Psycho-Analysis, the practice of which is based on the theory that in the course of our experiences since early childhood many persons, if not all, have repressed thoughts and emotions that have, as it were, festered in the unconscious levels of their minds and by no means disappeared altogether. It is supposed that such repressed emotional ideas are tending persistently to return to consciousness, and that what with the psychic pressure thus exerted and the mental

irritation thus set up, a serious disturbance of conscious thought and nerve-tone results. Such a repressed and irritating set of thoughts and emotions has been termed, for purposes of convenience, a *Complex.*

The art of the psycho-analyst consists, first of all, in discovering the "complex" at the basis of any particular nervous or emotional trouble; secondly, in so altering its value for the sufferer when it has been discovered, that it no longer irritates and harms.

In the achievement of these ends a variety of very complicated technical procedures has to be followed out, and it is important to note that not only have hidden memories to be probed, but dreams to be investigated as well, for the latter are often found to throw a light on the problems under consideration, such as indicating directions in which the mental analysis may be succesfully carried out.

Now to what end does all this lead us?

We can understand that the human mind is a development suited to the requirements of this life closely inter-related with the health and growth of the brain, and gives us much knowledge of things around us. But this does not say that there can be no other *form* of knowledge, or wisdom, open to us. Indeed, it is admitted *that there are forms of spiritual knowledge, and ways of spiritual knowing, that far transcend ordinary mental knowing, and are sometimes available to us in this phase of existence.* This is well-known to many whose spiritual experiences are of greater value to them than anything which purely physical experience has to offer. *There are, indeed, far more people fortunate enough to "feel" their contact with the Great Unseen than the average person who has no confidence in the spiritual realm has any idea.* It is not always those who are silent who have nothing to say.

Psychology working on the best lines of pure science has been of inestimable value in showing us something of the way in which the principles of Suggestion, Hypnotism and Psycho-Analysis produce effects on mental life that are reflected in physical changes. Psychology has been immensely helpful to everyone who has studied the subject of Psychotherapy from the rational point of view, thus enabling scientific systems of suggestive therapeutics to be built up, to the great advantage of thousands of nervous and other sufferers in all parts of the world. But

psychology has not told us one whit more about the spiritual world than priests, poets and prophets.

Thus, it will be a thousand pities if the psychologists of any school attempt to undo the good work this science has done already, by claiming that psychology has disproved the spiritual and shown that the Spiritual Ego is but a poetic dream. Psychology has done nothing of the kind.

A better understanding of my meaning will, no doubt, be gained if I review the following points. Suggestion works its effects through the conscious and sub-conscious strata of the mind, and thence through the medium of the Brain, through which it may control the organic functions of the body; and thus it may be brought into play without any reference to the spiritual life. The same may be said of Suggestion in the hypnotic state; for under this condition the essential point is the abeyance of the conscious Mind, allowing suggested ideas to obtain control to a greater or less degree of the whole mental field. Nevertheless, *although Suggestion explains many things in physical experience, it is questionable if it explains everything that it has been asked to do in this connection.* Not so long ago, I habitually wrote and believed that most psychical phenomena could be explained by the law of Suggestion, materialistically considered; but, in spite of this, in view of the fact that certain experiences shook my firmness in this respect, I have since taken a wider view of the problem. *The sort of difficulty one meets with in trying to explain everything by Suggestion from that point of view is: Does it explain why one individual can soothe and convey manifest benefits whilst another cannot? Does it explain certain mental effects which are at times brought about by Psychotherapy in the instance of sceptical individuals? Does it explain the renewed energy, the feeling of vitality and strength, which thousands of people are accustomed to obtain through the medium of prayer, meditation, contemplation of scenes of great beauty, charitable actions, and so forth?* If it does not, *then we must look for the cause of certain conditions of augmented powers of mind and body on a plane higher than the mental, and that plane necessarily appears to be one which we know as the spiritual plane.* It seems that under certain favourable circumstances—under which mental attitude unquestionably plays an important part—"psychic force" from a higher level can influence the whole human organization to an exceptional degree. When this occurs the results are always for the good of the individual concerned,

and not infrequently remarkable enough. On the mental plane such effects are usually concerned with the moral outlook of the individual, consisting in some cases of readjustment of surroundings ; in others to an inward strengthening which enables them to bear more readily the burdens of this life. Conversion from a bad career to a good one, from a policy of selfishness to one in which the interests of others take a leading part, from vice to virtue, appears to be effected by this same influence. Seen at its best, this particular psychic effect brings peace to many a tortured wanderer, solace and conviction to many restless souls.

And even on the physical plane, this psychic influence is able at times to bring about astounding changes, the most notable of which is the restoration of health. Such restoration does sometimes occur.

It seems to me that, whilst Suggestion certainly has an important part to play in life, both in health and ill-health (acting primarily *on the mental planes*), *yet there is a far higher plane than the mental, and it is from that higher psychic plane that we can look for the greatest benefits in the regeneration of mankind, either mentally or physically.* It is quite possible that if such psychic or spiritual force can ever by any means be made manifest in physical experiment, it would be found that Suggestion may have some what I may term " directing influence " in focussing its effects on particular parts of the body.

Conclusion.

One cannot well conclude an address on Psychotherapy without reference to that Great Idea that has in some form or other the basis of many philosophies, the idea that there is at our disposal a vast reservoir of psychic (spiritual) power. And this idea to-day is assuming a more practical form than ever to many thinkers, in that they realize that the spiritual sphere whence this vast power takes origin, or wherein it is contained, can be approached by ourselves whenever we like—that under ordinary circumstances we probably largely depend (from the spiritual point of view) on sustenance derived therefrom. Moreover, that the encouragement of certain types of thought, and the wilful maintenance of an outlook that can conveniently be termed " bad " may actually shut out this energizing influence from without. And that by the assumption of a definite will-attitude—by an attunement in fact—we can obtain increased

stores of psychic energy—of life-force, indeed—for our strengthening and mental uplifting, and for the preservation of health. Such a wonderful fountain of life, health and well-being as thus postulated would need only to be reached to bring about benefits to ourselves that have as yet not been dreamed of as possibilities. And the theory provides a reasonable explanation of the greater benefits of some forms of psychic treatment, and the results of religious faith, that have previously been noted.

There may be some who possess a natural ability for uplifting others so as to harmonize them readily with the Great Unseen. Their ministrations would therefore more quickly let in the new strength and energy from the higher planes than would those of others, successful as those latter might be in the practices of Suggestion on a purely mental plane. And there are those who possess an inherent power of getting into touch quickly with the source of spiritual strength. With them certain mental activities, which we have been inclined to consider as simple Self-Suggestions on a mental, may speedily bring help and sustenance even to restoration of health. And such exercise as that of prayer would naturally be expected to act as a process of attunement to the spritual beyond. Similarly with the attitude of a sublime Faith.

The secret of our possibilities for entering into practical communion for good or evil with a spiritual world is indeed the secret of our sub-conscious mind. To-day there are not a few who believe that through the medium of sub-consciousness we can and do enter into such relations.

Although the practical physical demonstration of psychic or spiritual force has not been attained, we cannot but feel that the experiences of every believer who prays to a Divine Power, of every one who maintains faith in the spiritual kingdom, of every mystic and of every true worshipper—that such experiences offer internal psychic or spiritual evidences of realities which the science which deals with appearances only cannot hope to demonstrate. It is a matter of everyday experience that prayer and faith bring strength and peace to millions of people—a strength and outlook that no theory of a simple process of Self-Suggestion on a material or mental plane can adequately explain. The prayer-attitude is after all only a more active form of the faith-attitude, and it is certain that both result in great works being done for good. As William James well put it :—

" The further limits of our being plunge, it seems to me, into

an altogether other dimension of existence from the sensible and merely understandable world. Name it the mystical region, or the supernatural region, whichever you choose. So far as our ideal impulses originate in this region (and most of them do originate in it, for we find them possessing us in a way for which we cannot articulately account), we belong to it in a more intimate sense than that in which we belong to the visible world, for we belong in the most intimate sense wherever our ideals belong. Yet the unseen region in question is not merely ideal, for it produces effects in this world. When we commune with it work is actually done upon our finite personality, for we are turned into new men, and consequences in the way of conduct follow in the natural world upon our regenerative change. But that which produces effects within another reality must be termed a reality itself, so I feel as if we had no philosophic excuse for calling the unseen or mystical world unreal."

William James also made an attempt to bring together the apparently opposed standpoints of religion and psychology when, referring to the spiritual meaning of certain mystical experience, when he wrote :—

"But if you, being orthodox Christians, ask me as a psychologist whether the reference of a phenomenon to a subliminal self does not exclude the notion of the direct presence of the Deity altogether, I have to say frankly that as a psychologist I do not see why it necessarily should. The lower manifestations of the subliminal, indeed, fall withinthe resourcesof the personal subject: his ordinary sense-material, inattentively taken in and subconsciously remembered, and combined, will account for all his usual automatisms. But just as our primary wide-awake consciousness throws open our senses to the touch of things material, so it is logically conceivable that *if there be* higher spiritual agencies that can directly touch us, the psychological condition of their doing so *might be* our possession of a subconscious region which alone would yield access to them. The hubbub of the waking life might close a door which in the dreamy subliminal might remain able to impress us; they may get access to us only through the subliminal door."

And again :—

"If the Grace of God miraculously operates, it probably operates through the subliminal door, then. But just *how* anything operates in that region is still unexplained. . . ."

DISCUSSION.

Mr. THEODORE ROBERTS appreciated the learning displayed in the paper so far as he understood it, and would comment on it from the point of view of a Bible student. He hoped the lecturer did not mean by characterising the power of getting into touch with the source of spiritual strength as " inherent " (p. 60) to deny the necessity of the new birth, without which men could know nothing of things spiritual (John iii, 3).

He agreed with the lecturer that suggestion was a possible explanation of many so-called " miracles " (p. 153), but pointed out that this would not explain most of those set forth by the Beloved Physician (Luke vii, 21, 22) as witnesses to our Lord's Messiahship. There was too a difference in kind and not merely in degree between His miracles and those of the greatest of the Old Testament prophets and New Testament apostles, as was shown by their having to pray before raising the dead, and by His being able to heal at a distance, which proved that He possessed Divine power in a way they did not.

With reference to what the lecturer said as to the visions of religious people (p. 154), he would point out that this could not be applied to that seen by Saul of Tarsus, which produced his conversion, as it was entirely contrary to his previous experience or the thoughts of his mind, and was therefore an objective reality. He regretted that the Dean of the cathedral which took that apostle's name dared in an essay some time ago to account for the apostle's conversion by an epileptic fit.

Mr. WILLIAM C. EDWARDS said : I have much enjoyed the lecture to which we have just listened, and what I specially appreciated is its modesty, and it happily lacks that arrogant " cocksureness " (if I may be allowed to use such a vulgar word) of most speculative pronouncements of so-called scientific essayists.

If I understand the argument, it is this : we have each a mysterious something which we call the will. What is the will ? Jonathan Edwards defines it as " that which decides." That is a *reply* but not an *answer*. He then enquires : What decides the will ? and writes " the strongest motive," which strikes me as the most complete and satisfactory answer I have ever met with on the subject.

How does the will operate upon the body whose servant it is, or ought to be ?

I am sitting down, I want to rise and I *will* to do so ; an infinite number of orders are instantly passed to and through an infinite number of nerves and cells, and these, co-ordinating, enable me to stand up.

Now, in our wonderful bodies there is something which I will call a healing or repairing department. Is that involuntary or is it capable of coming under the control or influence of the will ? I cut my hand, the blood oozes out, then the red corpuscles cease to flow, and pure serum comes that hardens in the atmosphere and forms what we call a " scab," under which the repairing department of our bodies works to replace the loss and re-grow skin, etc. Can I will to accelerate or strengthen that wonderful recuperative department ? Why not ? If my will to rise can affect an uncountable number of muscles and cells, why shall we assume that in this department the " writs of the will " do not run ? I feel sure that, unknown to us, these recuperative processes go on all our lives, and, indeed, to their beneficial work we often owe the preservation of our lives. When this department closes down the person dies.

I could wish that our learned lecturer had given us some examples from his long years of experience and practice. May I do so ? I will only give you two instances.

In the year 1851—the year of the first great Exhibition of which the Crystal Palace is a part and a relic—my mother, then a girl of fourteen years, was lying ill in bed with what they called a bad sick headache or bilious attack. Her aunt, living in a town eleven miles away, one Friday wrote to my grandmother something like this : " Mary and I are going Monday morning to London to see the Exhibition and shall stay at Aunt Watson's. As soon as you get this letter, let your Mary come on by the carrier and stay with us over Sunday and be ready for the train early Monday morning." My grandmother exclaimed : " What a pity ! Of course she is too ill to go." She read the letter to my mother, but my mother said, " I will go ! " and got up, washed, and dressed, and went off as merry as a cricket about an hour later. Surely it was a case of will or mind cure !

May I also give you a personal instance ?

More than twenty years ago I was abroad. Cholera had broken out in the country, and I was suddenly taken very ill—apparently with that dread disease. I remember—oh ! how well I remember it !—everyone seemed to shrink from me as from the plague itself. " You've got it," said one of the men. I thought what " it " meant —going off to a hospital, etc.—and, pulling myself together, I said, emphatically, " No, I have not got it." From that moment I got better, the distressing symptoms passed off, and within an hour I felt myself again. I may be mistaken, but it has always seemed to me that had I succumbed to the sensations I should have had " it," but my will conquered and saved me in some wonderful way from a dreadful malady.

Lieut.-Col. G. MACKINLAY said : How little we know on this subject, which contains so many undefined influences (p. 146), and yet we have been surrounded by them for thousands of years ! It is very satisfactory to find that nothing contrary to the teaching of Scripture has been brought forward ; on the other hand, it is noteworthy that the present modern treatment of kindness to the mentally afflicted originated with the Quakers acting on Scriptural principles, and not with mental specialists.

It may be that we are on the eve of real advance, and we may expect progress in faith (p. 160). With all our modern methods of Suggestion, Auto-Suggestion, Drill, and Discipline, it is doubtful if we have advanced beyond the treatment accorded to Nebuchadnezzar when he was turned into the fields to lead the simple life.

The present age has witnessed wonderful progress in science in many fields, but the treatment of the brain and of its diseases has lagged terribly. It may be that we are on the eve of great discoveries in this direction. May investigators like our gifted lecturer be abundantly encouraged ; there is plenty of room for a scientific worker to immensely benefit humanity !

Mr. H. O. WELLER writes : I much regret my absence from the reading of this paper, as it forms a basis for what must have been an interesting discussion. The author has given a useful account of the whole subject ; may I be allowed to join in the congratulations he has doubtless received. But I am disappointed that he has not dealt more closely with Psycho-Analysis ; and I am yet more disappointed with his summing-up and conclusion.

He appears to lump together all kinds of spiritual experience—pagan, Christian, and neo-pagan (spiritist)—referring sympathetically to "a vast reservoir of psychic (spiritual) power" from which we draw spiritual sustenance by "the assumption of a definite will-attitude," and so on. This theory, he thinks, "provides a reasonable explanation of . . . the results of religious faith . . . ," among other things.

Now, I cannot claim much space, so I will come straight to the point and assert that psycho-analysis is a dangerous practice, especially when it is successful in giving apparent relief, because it does so by application of what St. Paul calls "the law of sin" (Rom. vii, 23 and 25). The truth appears to be that there are two laws—the law of God and the law of sin—and that there is bodily and mental health in obeying either. It is the clash of the two in his soul that makes a man wretched: Paul says, "Unhappy man that I am . . . ," psycho-analysts talk of an anxiety neurosis. So far there is agreement. But Paul points out how deliverance may be obtained: "Thanks be to God, through Jesus Christ our Lord"; while the psycho-analyst delivers by surrender to sin. That is where the difference begins. It begins there: it ends with a separation as far as Heaven is from Hell.

"What we need," says one, and not the worst by any means, "is to be freed from the oppressive burden of religious, ethical, and social inhibitions"; and, if we have studied the subject, and kept our eyes open, we must agree that physical and mental happiness will be found in such freedom. Paul, however, calls that sort of freedom being led "captive to the law which is everywhere at work in my body—the law of sin. He also says that "abandonment to earthly things is a state of enmity to God." In short, the freedom given by psycho-analysts is not true liberty at all, but obedience to the rule of "nature red in tooth and claw."

Nevertheless, there is truth in psycho-analytic teaching: the man in mental conflict—anxiety neurosis, a guilty conscience, or whatever you call his state—can find no rest half-way. He must either, by psycho-analysis, be freed downwards into his lower nature, or upwards into the liberty which is in Christ Jesus.

Dr. SCHOFIELD writes: It is with great regret that I find myself unable to be in London on the 6th; but I have greatly enjoyed

Dr. Ash's very able paper, and I should like, on behalf of the Victoria Institute, to contribute my share in thanking the doctor for bringing his difficult subject so clearly before us.

As a fellow-student, I will venture a few remarks. On page 147 the observations on infant consciousness are not only profoundly true, but seem to me quite original. I think the reason why Auto-Suggestion is both difficult and unpopular, and often futile, is because patients are generally asked to learn to use it when their own minds are not normal. Page 150, "*The Sub-Conscious Mind.*" Why "sub"? There is a sub-conscious or sub-liminal mind immediately below consciousness that can by effort be brought into consciousness by forced introspection, but it is very limited in extent, and corresponds to the tideway in an island. Here the island (really a mountain top) represents what is seen and known, or consciousness; the vast part always beneath the ocean, the Unconscious Mind; and the tideway between, sometimes visible and sometimes hidden, the Sub-Conscious or Sub-Liminal.

But from Dr. Ash's paper it is clearly not the Sub-Conscious of which he speaks, but the Unconscious; and I would suggest that this is the better name.

Page 153: That "suggestion is always beneficial" is a statement that requires most careful guarding. Only of "good" suggestion can this be said; but there are in the medical profession evil suggestions of all sorts, quite innocently broadcast, that are very harmful. From this Dr. Ash distinguishes between the mental and spiritual "A purely mental plane, without reference to spiritual influences" (p. 153). "Spiritual knowing far transcending ordinary mental knowing" (p. 157). "Certain conditions . . . . on a plane higher than the mental," and so on.

Now, Dr. Ash distinctly calls the spiritual plane the higher "psychic plane" (p. 159). May I suggest that the material is the *physical* plane, the mental—the *psychic*, and the spiritual—the *pneumatic*, a word which, in spite of its unfamiliar sound, emphasises the impassable gulf between "psuche," the psychic or mental, and "pneuma," the pneumatic or spiritual.

I feel quite sure Dr. Ash will take these suggestions in the appreciative spirit in which they are written.

677TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W.1, ON MONDAY, APRIL 20TH, 1925, AT 4.30 P.M.

SIR GEORGE KING, M.A., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed, and the HONORARY SECRETARY announced the following elections:—As a Member, the Rev. F. W. Pitt, and as Associates, the Rev. Alexander Hodge and Mrs. F. M. Smith, B.Sc.

REVELATION AND EVOLUTION: CAN THEY BE HARMONIZED?

By GEORGE MCCREADY PRICE, M.A., Professor of Geology, Union College, Nebraska, U.S.A.

Being the Langhorne Orchard Prize Essay for 1925.

I.

THE Evolution doctrine has its astronomical and cosmic aspects; but for our present purpose the term may be narrowed down to that portion of the general theory which deals with the origin of the plants and animals of our globe. The latter theory is more generally termed "Organic Evolution"; and such is the sense in which the term *Evolution* is used in the present essay. By "Revelation" we mean the Bible, the embodiment of those facts and doctrines upon which Christianity has been built. So that our subject may be more specifically stated: "Can the theory of Organic Evolution be harmonized with the teachings of the Bible?"

The Bible describes the origin of our plants and animals by what may be termed a *fiat creation*, that is, a creation brought about by the fiat or directly exercised will of God. The question of how long ago this creation took place is not important, neither is the question of how much time was occupied in this original creation; though on both of these points the Bible has made very interesting and important declarations. But for our present discussion, that is, with regard to the aspects of the

subject which are related to the theory of Organic Evolution, the chief feature of the Biblical account of Creation is that this Creation is very definitely stated to have been a *finished work*, something very different from those processes of natural law by which the present order of Nature is perpetuated or reproduced. Not only is this aspect of the case very clearly stated in the first and second chapters of Genesis, but, in addition, we have the record of the institution of the Sabbath, which was primarily designed as a memorial of a *completed* Creation, thus emphasizing the idea that this original Creation was something quite different from those processes now prevailing under which the organic kingdoms are perpetuated or sustained.

In marked contrast with this, we have as the prime idea of Organic Evolution the notion that our plants and animals have come about by a long process of development under precisely those processes of Nature which now prevail round us. In other words, the Evolution theory measures all events in the past by the present; it says that the present is the real measure of the past, and the measure of all the past, including the so-called origin of life and of all organic existences. In explaining this theory, the emphasis is always placed on such present-acting processes as variation, heredity, and environment; and we are constantly impressed with the idea that these present-acting processes or laws of organic nature are quite sufficient to explain how our present complex array of plants and animals have arisen by purely natural processes from simple beginnings, and ultimately from the inorganic or the not-living.

In short, the theory of Evolution is only a special form of the general theory of *Uniformity*, the latter being a view of the Universe which denies that there is any real contrast between the beginnings of things and the present order of Nature under which the world around us is being sustained and perpetuated. In contrast with this idea, we have the Bible picture of a real beginning, a real Creation, distinctly different both in the degree and in the character of the Divine power then manifested, from the present exercise of God's power in sustaining and perpetuating what He then originated.

Practically all scientific writers who have dealt with this aspect of the question have emphasized the marked contrast between Evolution and Creation. It is only some very modern theologians who, by an utter confusion of thought, have tried to smooth out all difference between the two ideas.

ERASMUS DARWIN, the grandfather of Charles Darwin, declared:—

"The world has been evolved, not created; it has arisen little by little from a small beginning, and has increased through the activity of the elemental forces embodied in itself, and so has rather grown than suddenly come into being at an almighty word."—(Quoted in *Readings in Evolution, Genetics, and Eugenics*, p. 3. University of Chicago Press; 1921.)

HENRY EDWARD COMPTON has also spoken very clearly of the emphasis which the theory of Evolution places on the philosophic concept of uniformity:—

"The doctrine of Evolution is a body of principles and facts concerning the present condition and past history of the living and the lifeless things that make up the Universe. It teaches that natural processes have gone on in the earlier ages of the world as they do to-day, and that natural forces have ordered the production of all things about which we know."—(*The Doctrine of Evolution*, p. 1; 1911.)

On the other hand, the Bible teaches that the things which are seen, that is, the material things around us, "were not made of things which do appear" (Heb. xi, 3); or in other words, they did not come into existence by any process which we could call a "natural" process. Creation is the term applied to this beginning of things; and the Bible always speaks of it as a completed work, not as something now going on. It may likewise be borne in mind, that when arraigned by the Sanhedrin for exercising miraculous powers of healing on the Sabbath, Jesus declared: "My Father worketh hitherto, and I work" (John v, 17); thus intimating quite plainly that the continued exercise of miraculous power on the part of God or Christ is perfectly consistent with the primal fact that the Sabbath was given to mankind as a memorial of a *completed* Creation.

It is thus very evident that there is no similarity between the idea of Evolution and that of Creation; it is all contrast. The two terms are antonyms; they are mutually exclusive; no mind can entertain a belief in both at the same time; when one notion is believed, the other is thereby denied and repudiated.

II.

A similar relationship of contrast and mutual exclusiveness is seen when we consider the bearings of Creation and Evolution toward the problem of sin, or moral evil.

The Bible has a clear and understandable explanation of sin, or moral evil, as having been brought about by the free choice of a created being, or beings. We may not be able to explain entirely the origin of sin; for to "explain" it, in the sense of showing a cause for it, would be to defend it, and then it would cease to be reprehensible. Sin is due to an abuse of freedom; it has no other explanation. But God has permitted it for the sake of teaching essential lessons to the Universe. And the risk of sin occurring is a risk inseparable from the endowment of free moral choice, which the Creator bestowed on angels and men. But the Bible clearly teaches that God from the beginning made provision for this desperate emergency, whenever it should arise; and the whole history of God's dealings with mankind is simply the record of God's method of dealing with this situation, which has arisen because of the abuse of that freedom, or the power of free moral choice, which the Creator bestowed on some of the higher orders of His created existences.

From this it follows that sin is an intruder, an anomalous situation; its essential nature is that of a revolt, a rebellion against the established order of the Universe, as the latter is an expression, and a perfect expression, of the will of the Creator. Thus, sin is not a primal or an original condition; it is wholly secondary, in point of time. From this it follows further that suffering and death (on the part of animals and man) are also wholly secondary, and are not a part of God's original design in Creation. "God saw everything that He had made, and behold it was very good" (Gen. i, 31). God created man "upright" (Eccl. vii, 29), "in His own image" (Gen. i, 27), with no bias whatever toward evil. But "by one man sin entered into the world, and death by sin; and so death passed upon all men, for that all have sinned" (Rom. v, 12).

All this is the uniform and absolutely unanimous testimony of the Bible from Genesis to Revelation. The Bible gives no sanction to Manichæism, or the doctrine that evil has existed from the very beginning of things, that it is coeval with the good.

But the latter, however, is exactly the teaching of the Evolution doctrine. Evolution gives us no solution of the problem of the origin of evil; it merely pushes the problem back into the shadow, where we cannot see anything distinctly. In the last analysis, Evolution either makes evil the deliberate work of God, in forming beings with a bias toward evil; or it makes evil an inherent property of matter, beyond the reach of God's

power, something in the very nature of things, which God Himself could not help or overcome when He started the Universe evolving. This theory of a "finite God," as taught by J. S. Mill, William James, and others, seems to have become very popular with modern philosophers who have accepted the Evolution theory; but it certainly is not in accord with the Bible. It is a sort of modern Manichæism, wholly antagonistic to the Christian religion.

This is the testimony of LE CONTE:—

"If Evolution be true, and especially if man be indeed a product of Evolution, then what we call evil is not a unique phenomenon confined to man, and the result of an accident [the 'fall'], but must be a great fact pervading all nature, and a part of its very constitution."—(*Evolution and Religious Thought*, p. 365.)

But any one who will take the pains to compare this view of evil with that taught by CELSUS, the Neo-Platonist, and the first pagan writer to devote an express work to attacking Christianity, will see that this modern evolutionary philosophy is identical with the ancient pagan view of the world in this respect. There is certainly nothing Christian about such a view; it is paganism, pure and unmixed.

We have been considering the primary or the more remote cause of sin, evil, suffering and death. If we consider briefly the nearer or the proximate cause of these things, we find that, according to Evolution, sin is simply inherited animalism. It appears to make no difference to the advocates of this view that many very evil propensities, such as pride, envy and rebellion against God, seem to have no possible connection with animalism; there really is nothing else in the Evolution view of the case to which we may trace the multitudinous propensities of what the Bible calls the "carnal heart."

As JOHN FISKE expresses it:—

"Theology has much to say about original sin. This original sin is neither more nor less than the brute-inheritance which every man carries with him."—(*The Destiny of Man*, p. 103.)

Dr. E. W. MACBRIDE, at the Oxford Conference of Modern Churchmen, expressed himself on the same point as follows:—

"If mankind have been slowly developed out of ape-like ancestors, then what is called sin consists of nothing but the tendencies which they have inherited from these ancestors: there never was a state

of primeval innocence, and all the nations of the world have developed out of primitive man by processes as natural as those which gave rise to the Jews."—(*The Modern Churchman*, Sept., 1924, p. 232.)

On the same occasion, Dr. H. D. A. MAJOR made a similar declaration :—

"Science has shown us that what is popularly called 'original sin' . . . consists of man's inheritance from his brute ancestry." —(*Id.*, p. 206.)

From these statements by representative Evolutionists, we are safe in concluding that the teaching of the Evolution doctrine is in vital and complete antagonism with the historic teachings of Christianity. If it should be objected that the Bible does not use the expression, "the fall of man," it may be replied that the idea of a fall, as an explanation of the great fact that man is a sinner, runs like a scarlet thread through the entire Bible from beginning to end.

From the profusion of references which might be cited on this point, the following from JOHN WESLEY may suffice to show the place which this doctrine of the fall of man occupies in Christian theology :—

"The fall of man is the very foundation of revealed religion. If this be taken away, the Christian system is subverted, nor will it deserve so honourable an appellation as that of a cunningly devised fable."—(*Works*, Vol. I., p. 176.)

Also the following from the same author :—

"All who deny this, call it original sin, or by any other title, are but heathens still in the fundamental point which differentiates heathenism from Christianity."—(*Id.*, Vol. V., p. 195.)

We may safely conclude from all these testimonies that the theory of Organic Evolution is in hopeless antagonism with the teachings of the Bible regarding the subject of the origin of sin. I cannot see how this direct antagonism can be reconciled. The Bible gives us an account of the beginnings of sin which makes sin the result of a deliberate wrong choice on the part of the parents of the human race. Because of this first disobedience, the nature of mankind has become degenerate and depraved; man is naturally a sinner, out of harmony with his Creator and the fundamental laws of the Universe. But the Evolution theory says that man's "sinful" tendencies are simply his inheritance from his brute ancestors; man is not a fallen being, but a rising being; sin is but the "growing pains" of the race, something

which impedes and hinders us, it is true, but something which the race is gradually outgrowing. As for the origin of these " sinful " tendencies, Evolution has no explanation, except to make them an inherent part of the very Universe itself, something which God Himself could not avoid or eliminate when He started the process of an evolving Universe—if, indeed, we can suppose any such deliberate or purposive beginning of the Universe on the part of a personal God. In this respect, the Evolution theory seems to be merely reverting to the crude pagan ideas which had long occupied the mind of the world when Christianity came with the light of its Divine Revelation.

III.

As Christianity and Evolution are in direct contrast in the matter of the origin of sin, so also we may notice, next, they are in the same diametric opposition when they come to deal with the problem of the remedy for the sin and evil of our world.

The Bible treats of sin as a desperate condition, something ensuring eternal death, eternal separation from God, unless it is remedied. And it offers that unique remedy for sin which is called the Atonement. The desperateness of the situation called sin can be estimated only in the light of the amazing remedy for it, namely, the death of a Divine Sacrifice. In the very nature of things, this awful remedy would not have been required if mankind could have been saved from sin in any other possible way. Indeed, Peter declared that there is no salvation in any other way (Acts iv, 12).

But what conceivable place is there for a substitutionary Atonement in the scheme of Organic Evolution ? Not only is there no room for such a remedial system through the death of the Son of God, but almost to a man Evolutionists and " advanced " theologians seem to exhibit a strong antipathy to any such idea. The following from Sir OLIVER LODGE is quite typical of this class :—

" As a matter of fact, the higher man of to-day is not worrying about his sins at all, still less about their punishment. His mission, if he is good for anything, is to be up and doing ; and in so far as he acts wrongly or unwisely he expects to suffer. He may unconsciously plead for mitigation on the ground of good intentions, but never either consciously or unconsciously will any one but a cur ask for the punishment to fall on someone else, nor rejoice if told that it already has so fallen."—(*Man and the Universe*, p. 204.)

The implacable hatred shown towards the Bible doctrine of the Atonement, on the part of Evolutionists, may be further illustrated by the following from DURANT DRAKE :—

"What sort of justice is it that could be satisfied with the punishing of one innocent man and the free pardon of myriads of guilty men ? The theory seems a remnant of the ancient idea that the gods need to be placated ; but by the side of the pagan gods, who were content with humble offerings of flesh and fruit, the Christian God, demanding the suffering and death of His own Son, appears a monster of cruelty."—(*Problems of Religion*, p. 176.)

These two quotations sound very strange as coming from men who call themselves Christians, DURANT DRAKE even being a well-known teacher of a certain form of "advanced" religion.

But we can better understand the logic of the situation from the following pungent statement of ROBERT BLATCHFORD :—

"But—no Adam, no Fall ; no Fall, no Atonement ; no Atonement, no Saviour. Accepting Evolution, how can we believe in a Fall ? *When* did man fall ; was it before he ceased to be a monkey, or after ? Was it when he was a tree man, or later ? Was it in the Stone Age, or the Bronze Age, or in the Age of Iron ? . . . And if there never was a Fall, why should there be any Atonement ? "—(*God and My Neighbour*, p. 159 : Chicago, 1917.)

There is surely no need of multiplying testimony on this point, to prove that Evolution and Christianity are as far asunder as the poles in their attitude toward the remedy for sin. The Bible, as the Divine Revelation of Christianity, comes to a focus in its remedy for sin, through the vicarious death of the divine-human Sacrifice on the Cross of Calvary. The utter repudiation of this provisional remedy for sin has long been familiar to the historian, from the writings of CELSUS and PORPHYRY, down through the long line of sceptics and atheists, such as HUME, VOLTAIRE, PAINE, and INGERSOLL. But in our day this rejection of the basic idea of Christianity finds its chief support in that widespread theory of the origin of man which makes the doctrine of the Atonement meaningless, through its explanation of sin as mere inherited animalism, and nothing really very bad after all. As R. J. CAMPBELL has expressed it—If there ever was a "fall," it was a fall "upward" !

Surely, there is no possible method, consistent with logical and honest thinking, by which this inherent teaching of Organic Evolution can be harmonized with the historic form of Christianity, as represented by the Bible.

IV.

Evolution's forecast of the future of the human race is by no means cheering. Until the outbreak of the World War, its picture of the future was roseate and glorious, like that of a bright summer morn. Man was a rapidly rising being; he had already progressed so far that the future was assured. Soon the war-drums would throb no longer, and the battle-flags would be for ever furled in the parliament of man, the federation of the world! But the sad and grim reality of the past ten years has changed all this. To-day the most hopelessly pessimistic of the world's prophets, for example, H. G. WELLS, are those who have most completely adopted and assimilated the doctrine of Organic Evolution. The more enthusiastic followers of Marxian Socialism, with its programme of the dictatorship of the proletariat, are, so far as I know, about the only Evolutionists who take at all a cheerful view of the world's future. The others all paint the picture in dark shadows: the collapse of civilization, the utter extinction of the race of mankind, are the favourite titles.

The future of mankind is made a biological fate, grim and ineluctable, after the example of the extinction of the trilobites, the dinosaurs, the dodo, and the greak auk. "Our little systems have their day; they have their day, and cease to be." True, each of these Evolutionary prophets has his infallible remedy which, if the world would but adopt it, would long postpone, perhaps entirely avert, the impending doom. But the stubborn race goes on, heedless of suggested panaceas; and accordingly these world-forecasters have become, almost invariably, preachers of world disaster and oblivion.

On the other hand, the Bible does not give a bright or hopeful picture of the world's future, so far as the present age or the present order of things is concerned. True, it has a bright future in store, when "there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain" (Rev. xxi, 4). But it treats the present condition of the world as being hopelessly diseased; and only by the abrupt end of the present age, and the supernatural replacement of the present by the direct reign of CHRIST as King of kings and Lord of lords, can that reign of eternal joy and happiness be ushered in. But between this and that lies a dark shadow, like the death of the race; only on the other side of which can the vision of faith

discern the tearless eye, the fadeless cheek, and a social state unmarred by sin, hatred, or oppression.

The Evolution doctrine, even at its highest level of hopefulness, never had any such outlook. At best, it promised a sort of salvation of the race through the alleged perfectibility of mankind as a whole, and tried to cheer us with the hazy hope, as PHILIP MAURO expresses it, that the world might at some time "become a more comfortable place for the man of the future to sin and die in." But such a hope is pitifully inadequate as a message for those who, here and now, under this hideous handicap of sin, fail in the sad conflict with inherited animalism. Certain is it that Evolution has no message of salvation for the moral failures of our day, nor for those of all past ages, unless it may be supposed that, at some future time, such beings are to be reincarnated at a higher stage of the racial development, and provided with another chance under less hard conditions. And, of course, in the minds of those Evolutionists who hold such views, the programme of racial development, reincarnation, and all, is to be accomplished fatalistically, quite without the intervention of any Divine Mediator and the death of a Divine Sacrifice.

Most Evolutionists, however, have not been able to cheer themselves with any such hope, feeble and uncertain though it be. Most of them would probably express themselves in the pathetic language of BERTRAND RUSSELL:—

"Brief and powerless is man's life; on him and all his race the slow, sure doom falls pitiless and dark." . . . "The life of man is a long march through the night, surrounded by invisible foes, tortured by weariness and pain, toward a goal that few can hope to reach, and where none may tarry long. One by one, as they march, our comrades vanish from our sight, seized by the silent orders of omnipotent Death."—(*Mysticism and Logic*, p. 56.)

Are we as Christians asked to surrender our hope of immortal life, a hope that has been confirmed by the Resurrection of our Lord, that has cheered an innumerable company of the saints of all ages, in loneliness, in torture, at the stake, or in toil while proclaiming it in distant lands—are we asked to surrender this hope for such a gospel of despair as this, now offered us in the name of Organic Evolution?

The Christian view is that the present order is but a temporary condition; the time is coming when a great world-change will occur, when the world will come under the direct and special rule of the Lord Jesus Christ. This change is not a gradual

kind of transition; it is sudden and abrupt. In the Christian view of the matter, it is utterly unthinkable that the present order—involving innumerable births and deaths, with incomputable suffering and misery in the interim—should continue throughout eternity, world without end. Thank God, the Bible gives no countenance to such a hopeless world-nightmare; there is to be a change, and by many it is thought that the change is not far distant. However this may be, the chief point is that there is to be a change; and that ultimately the long reign of sinning, and suffering, and dying will become but a memory, if indeed even the relic of a memory will remain to fret and annoy those who are so happy as to become partakers of that bright immortal life. But the Evolution doctrine has nothing as a substitute for this hope of the world, as revealed in the Christian's Bible.

The utter futility of the Evolutionary programme for the future is well stated by Dr. JOSEPH A. LEIGHTON, of Ohio State University. Even if we may suppose that moral and humane progress goes on through the welter of industrialism, commercialism, and war, who, he asks, are to enjoy the final fruits of this progress? Is humanity, as it toils in history, "engaged in an endless and goalless task"? Or is the goal to be reached only by some far-off generation, while "all the preceding generations will have been mere 'hewers of wood and drawers of water' to serve the welfare of the final happy one"? "Is it the lot of the living members of each generation simply to toil, and suffer, and achieve somewhat, in order to hand on to the following generation a nest of problems, with (and at) which that generation, in turn, will labour, to pass to the grave, and be forgotten after a brief toil at an endless task—one which is never done, but continues and changes throughout the centuries and the æons without final goal?"—(*The Field of Philosophy*, p. 501; edition of 1923.)

There is no need for us to dwell on the utter inadequacy of such a system of philosophy, with its endless round of birth, struggle and death, world without end, or until our earth finally tumbles into the sun, or becomes frozen up by the exhaustion of the central heating-plant of the solar system. The one thing pertinent to our present discussion is to point out that such a scheme of cosmic despair is completely at variance with that portrayed in the Christian's Bible. And unless the latter is completely false, the former is merely the invention of ingenious unbelievers, who refuse to accept that

warm, joyful, inspiring solution of the enigma of life which has been revealed to mankind directly by the only Being in the Universe who can really know what the future is to be.

V.

If, in our consideration of the question before us, we should confine ourselves strictly to its narrower and formal aspects, there would be no need of our considering the contingency of the truthfulness of the theory of Organic Evolution. Yet, unless we are content to leave our discussion in a very unsatisfactory state of incompleteness, we must consider, even though in the briefest way, the problem of whether or not the theory of Organic Evolution is an accurate and truthful explanation of the origin of the plants and animals of our world. The Christian may feel so confident of the Revelation which has been given him that he can say, "Yea, let God be true, and every man a liar," for it is certain that the theory of Evolution is not to-day any more confidently or more universally believed than was that old pagan view of the world in the Augustine age, against which Paul and a handful of fishermen pitted themselves in seemingly futile array. Again, the scientist may feel similarly confident that the results he has obtained by his research are to be trusted implicitly, regardless of what the Church may think has been revealed to her. It seems to me, however, that the modern world has been deadlocked in this fashion quite long enough. The time has fully arrived for those who think for themselves, and who do not entrust the keeping of their opinions to any set of supposed experts, to dismiss once for all the idea that man may possibly have arisen by a long-drawn-out process of development from preceding animal ancestors. Confident I am that in this year 1925 sufficient scientific facts are available to settle this long-debated problem in a way entirely satisfactory to the believer in the literal truthfulness of the first chapters of Genesis.

Much water has gone under London Bridge since DARWIN'S theory of Natural Selection captured the imagination of the world, by appearing to give a materialistic (and incidentally a very hideous) explanation of how a species could become so modified in the course of descent as to be changed over into some very different type of life. To-day Darwinism is as dead as the dodo, so far as its being regarded as a *vera causa* of the origin of species is concerned.

Mendelism has shown us how new types of animals and plants may arise by means of hybridization; and in this respect the results of experimental breeding constitute a valuable and permanent addition to our knowledge of the behaviour of living things. But its chief value lies in the fact that it shows how, by concentrating our attention on the "species" concept, as the crucial unit of Organic Existence, we have been looking at things too narrowly; we need to enlarge our ideas about the fixed units of life, and make the *genus*, or in some cases the *family*, the unit of biological work, so far as the discussion of origins is concerned. So far from showing us how really new kinds of plants or animals can originate by natural process, Mendelism has proved that in all our breeding experiments we are just milling around on the same old ground, merely marking time, so far as our being able to produce any types which could be spoken of as really new. In the light of our modern knowledge, we can substitute the word "family" for the word "species," in the famous aphorism of LINNÆUS, so that it will now read, "*Familiæ tot sunt diversæ quot diversæ formæ ab initio sunt creatæ.*" That is, there are as many families to be listed and spoken of by natural science as there were of different kinds originally created. And in the light of modern biological research, this statement appears to be literally and scientifically true.

Some little time before he died, ALFRED RUSSEL WALLACE left us the following very illuminating remarks:—

"On the general relation of Mendelism to Evolution, I have come to a very definite conclusion. That is, that it has no relation whatever to the Evolution of species or higher groups, but is really antagonistic to such Evolution. The essential basis of Evolution, involving as it does the most minute and all-pervading adaptation to the whole environment, is extreme and ever-present plasticity, as a condition of survival and adaptation. But the essence of Mendelian characters is their rigidity. They are transmitted without variation, and, therefore, except by the rarest of accidents, they can never become adapted to ever-varying conditions."—(*Letters and Reminiscences*, p. 340.)

But one of the foremost of American biologists, EDWIN GRANT CONKLIN, of Princeton University, has told us that: "At present it is practically certain that there is no other kind of inheritance than Mendelian" (*Heredity and Environment*, p. 99). Accordingly, if we put this fact alongside the statement given above from

A. R. WALLACE, we are safe in concluding that all our modern knowledge regarding breeding and heredity "is really antagonistic" to the theory of Organic Evolution.

We may draw a similar conclusion from the following words of Dr. E. W. MACBRIDE :—

"I well remember the enthusiasm with which the Mendelian theory was received, when it was introduced to the scientific world in the early years of this century. We thought that at last the key to Evolution had been discovered. As a leading Mendelian put it, whilst the rest of us had been held up by an apparently impenetrable hedge, namely, the difficulty of explaining the origin of variation, Mendel had, unnoticed, cut a way through. But, as our knowledge of the facts grew, the difficulty of using Mendelian phenomena to explain Evolution became apparent, and this early hope sickened and died. The way which Mendel cut was seen to lead into a *cul-de-sac*."—(*Science Progress*, Jan., 1922.)

But since Mendelism seems to give us rock-bottom facts in all this field of variation and heredity, why is not the suspicion very naturally suggested, that any theory of origins which finds itself in a *cul-de-sac*, or a blind alley, because of these Mendelian facts, must itself be wholly wrong and unscientific? Certainly, no other conclusion seems to me to be adequate to the present situation.

It is safe to say that many modern scientists, if not going quite so far as this, are at least becoming much less confident regarding the general subject of how our animals and plants have become what they are. For example, in his Presidential Address before the Botanical Section of the British Association, at the Liverpool Meeting, in 1923, Dr. A. G. TANSLEY stated that in the light of recent developments in botany, the search for common ancestors among the great groups of plants would appear to be "literally a hopeless quest, the genealogical tree an illusory vision."—(*Nature*, Mar. 8, 1924.)

In commenting on these declarations of TANSLEY, Prof. F. O. BOWER, of the University of Glasgow, declared :—

"At the present moment we seem to have reached a phase of negation in respect of the achievements of phyletic morphology and in conclusions as to descent. . . . I believe that a similar negative attitude is also to be found among those who pursue zoological science."—(*Id.*)

Similar statements could be given from such leading scientists as Dr. WILLIAM BATESON and Dr. D. H. SCOTT. These men still cling to the general idea of Evolution, but they expressly tell us

that they do so only as "an act of faith," for they cannot see any scientific explanation of how this process of organic development has come about. The former spoke as follows in his Toronto Address :—

"We cannot see how the differentiation into species came about. Variation of many kinds, often considerable, we daily witness, but no origin of species. . . . Meanwhile, though our faith in Evolution stands unshaken, we have no acceptable account of the origin of species."—(*Science*, Jan. 20, 1922.)

Similarly, Dr. D. H. SCOTT has declared that he still holds to the general theory of Evolution, "even if we hold it only as an act of faith"; but he tells us expressly that we do not know *how* the process of development came about :—

"For the moment, at all events, the Darwinian period is past; we can no longer enjoy the comfortable assurance, which once satisfied so many of us, that the main problem had been solved . . . all is again in the melting-pot."—(*Nature*, Sept. 29, 1921.)

In his work, *Extinct Plants and Problems of Evolution*, issued in 1924, SCOTT gives an admirable statement of the utter perplexity now confronting those who are face to face with the biological knowledge now available, who nevertheless feel that they must still hold to some form of Organic Evolution.

Up until recent years, the last stronghold of every form of a philosophic belief in Organic Evolution has been the Lyellian or Uniformitarian Geology. For if life has been appearing in various successive forms, age after age, with a more or less steady advance in the grade of life thus represented; and if this scheme of geology can scientifically prove this relative sequence of the great groups of living things, both plants and animals, the human mind will instinctively say that the higher and later kinds have probably grown by some natural development out of the lower kinds, which were earlier in point of time. Thus the Lyellian or Uniformitarian Geology might well be called an Evolutionary Geology; for some form of Organic Evolution would seem to be inevitably implied by this long-popular serial arrangement of the fossils in what was supposed to be a true historical sequence.

It may be permitted to add that, in works given to the world during recent years the present writer has placed a big question-mark after the evolutionary scheme of the fossils, and the gauntlet which has thus been thrown down has not so far been taken up by those whose opinions have come under undisguised attack. The question asked has taken the following shape : If the Cambrian

and the Ordovician forms of life are not actually older than the Cretaceous and the Tertiary, might we not reasonably expect to find some localities where the Cretaceous or Tertiary animals and plants were buried first, and the Cambrian and the other Paleozoic laid down afterwards? Certainly; and I have pointed to the famous area in Alberta and Montana, where, over an area some 500 miles long and 40 or 50 miles wide, *Cretaceous beds are below and Cambrian and other Paleozoic rocks on top, with every physical evidence that they were actually laid down in this relative order.* In the Salt Range of India, *Tertiary beds were manifestly laid down before the Cambrian.*

From these and many similar examples found in various parts of the world, I have drawn the conclusion—surprising, but seemingly inevitable—that intrinsically, and as of necessity, no particular type of fossil life is older or younger than any other. In other words, what we have in the rocks as the geological formations are merely the buried floras and faunas of the world before the great world-cataclysm of the Deluge, all of which were once living contemporaneously together. It is a purely arbitrary and artificial scheme by which the evolutionary geologists have arranged these buried floras and faunas, found in widely scattered localities such that no possible stratigraphical relationship can be made out for them, in an alleged chronological sequence. In a word, there are absolutely no solid scientific facts to hinder us from believing that these buried floras and faunas really represent the life of the Antediluvian world, which was destroyed and buried by this great world-cataclysm. That is, there is nothing to hinder us from believing this explanation of the riddle of Geology, except the sheer incredibility of there ever having been such a tremendous world catastrophe, and that mankind and the present surviving animals and plants must have lived through it. If the latter is admittedly possible, as the Sacred Scriptures seem to declare, the long popular scheme of Evolutionary Geology is a myth.

Here is, at least, a wholly new method of meeting the arguments of the Evolutionists. Whether or not it will be accepted by the scientific world, or even accepted by believers in the Bible, remains to be seen. Certain it is, this New Catastrophism, with Mendelism and the new light on Biology in support, stands alone between Christian people and the logical necessity of accepting the scheme of Organic Evolution, with its theory of man's animal origin, and all that this latter idea implies.

Discussion.

Mr. H. Owen Weller said that he was embarrassed by being called upon to open the discussion, as he was not in sympathy with the paper. At first sight it might attract people by its superficial orthodoxy, but actually it was dangerous. He contested the opinion that "only very modern theologians by an utter confusion of thought" had tried to smooth out the difference between the two ideas of Evolution and Creation. He, and many others, did it by seeing God working by some such gradual process as Evolution. A man of science might still be Christian. Further, he refused to accept the author's alternative between his "New Catastrophism" and "the logical necessity of accepting the scheme of Organic Evolution." And he deplored the intention, or effect, of the paper to drive a wedge between Christians and scientists. This had been done, or was being done, in America; he hoped that the quarrel would not be brought across the Atlantic.

Lieut.-Colonel G. Mackinlay said: I fully agree with the author in believing in the strict truth of the Bible in the subject of the origin of man, and I think the first pages of his address are admirable, and that he has quite proved his point; but, if I understand all his arguments aright, I cannot follow him in his last few pages—for instance, I cannot agree with his statement on p. 182, that "no particular type of fossil life is older or younger than any other." I should be glad if he would give his reasons for these words in his reply.

Rev. J. J. B. Coles said: The Professor's valuable essay should be circulated among those who attempt to use the doctrine of Evolution to exclude the equally true doctrine of Special Creation. Gen. i and ii should not be amalgamated.

"My Father worketh hitherto and I work." God's rest had been broken by the introduction of sin, and so God and Christ in long-suffering grace and mercy are "working" still.

Mr. Theodore Roberts remarked that, strictly speaking, the Bible was the divinely given record of the Revelation rather than

the Revelation itself, just as the fossils discovered were claimed to be the record of the Evolution which had taken place.

He did not feel vitally concerned in the question of whether the theory of Organic Evolution up to man was true, as many believed it could be reconciled with Gen. i, but he pointed out that the thrice-repeated statement that God created man (twice adding "in His own image" (verse 27), and the more detailed record of chap. ii, 7, that He "formed man of the dust of the ground and breathed into his nostrils the breath of life," clearly indicated an immediate link between man and his Creator) which led to the Creator being described as "the Father of our spirits" (Heb. xii, 9) in contra-distinction to our natural parents. When God thus imparted to man's body—whether formed instantaneously of the actual soil or out of it gradually through some evolutionary process—an immortal spirit, He to some extent limited His own future action by thus creating a moral agent, capable of rebelling against Him, and therefore free to choose between right and wrong. Having endowed such a being with a spark of His own life, God in future could only influence that being by moral motives, and, in the sacrifice of Christ and His present Resurrection activity, He had brought the mightiest moral forces to bear upon the man He had thus created. If that man deliberately rejected all God's gracious pleadings, there remained nothing but eternal misery for him. The love of God revealed in the Gospel assured us that none would be in the lake of fire that God could by any means save out of it.

Mr. HOSTE said: I think the lecturer may fairly claim to have proved logically that a belief in Organic Evolution, as usually understood, with its dogmatic denials of acts of Creation, any fall of man, and, therefore, the need or fact of atonement, is not consistent with belief in the Scriptural account of such matters.

Of course, there are dilettante evolutionists who are better than their creed; they have never faced the fair deductions of the theory in question, and so retain their general faith in the Scriptures. Some yield to the clamour of the second-rank evolutionists, who ignore the fact that their theory is as far as ever from being proved and that the Darwinian theory (which in the closing decades of

last century was as loudly asserted to be a scientific fact as the parent doctrine to-day) is now bankrupt. If Evolution be reduced to "an act of faith" to such men as Dr. W. Bateson and Dr. D. H. Scott, how can it be scientific to acclaim it victor all along the line, as the Bishop of Birmingham, D.Sc., is said to do? No doubt it is convenient to unload our moral delinquencies on a putative anthropoid ancestry, but how can this be righteous when, as the Professor notes, the most patent of these evils are not found in any of these lower "ancestors"?

There is one point I would venture to ask the learned lecturer to reconsider, and that is the passage on p. 182, where he seems to ascribe the present geological formations to the great world-cataclysm of the Deluge. I have no desire to minimize this catastrophe, but what authority have we for associating with it the deposition of the great fossil-bearing strata, with all the tremendous upheavals and reversals implied. How could the ark have fared in such a general condition of topsy-turvydom, except by a perpetual miracle? Even Ararat would not have been safe. Is there any hint in the biblical narrative of such a stately cataclysm?

Rather the mountains are spoken of as already existing in stable form, and can they be dissociated from geological formation? The cretaceous deposits, known as the Dover Cliffs, took more than the months of the flood to be laid down. Is it not safer, then, to associate the geological formations with the interval which, as has before been noticed from this platform, is believed by many to exist between the first and second verses of Genesis, whatever conclusions one may come to as to the Professor's general theory?

Mr. SIDNEY COLLETT said: Mr. Chairman, I most heartily welcome the paper we have listened to this afternoon as a very fine contribution to the subject under discussion, because it goes to the very root of the matter, and shows that the evolution theory denies the statements made in the Word of God concerning the creation of man.

The very essence of the evolutionary theory is that man was evolved from a lower animal—a monkey.

Not only, however, does the Bible give no countenance to this, but its teaching concerning the origin of man is entirely different.

In Gen. i, 27, we read, concerning man's *spirit*, that God created

man *in His own image*. Surely any attempt to reconcile that with Evolution is nothing short of blasphemy.

Then, in Gen. ii, 7, we read, concerning man's *body*, "The Lord God formed man of the dust of the ground." Now, if man was formed from the dust of the ground, how can it be true to say he was formed from an ape?

Again, in Luke iii, 38, where the *genealogy* of the *Man Christ Jesus* is traced back to Adam, we are distinctly told that Adam was the *son of God*! Will any evolutionist, in view of this verse, dare face the logical result of their theory and say that our blessed Lord, in His Holy Human Nature, was really descended from an ape?

Ladies and gentlemen, the position is perfectly clear. The two teachings are absolutely incompatible and irreconcilable. So that if Evolution on this subject is right, then the Bible is wrong, and we had better throw it aside as being unworthy of our confidence. But if the Bible is right, then Evolution is utterly and entirely wrong, and deserves to be cast aside and rejected for ever.

Pastor W. PERCIVAL-PRESCOTT writes: Last year the general criticism of the members of the Institute upon Prof. McCready Price's paper, "Geology and its Relation to Scripture Revelation," was the sparse references it contained to the Bible. This year on the Langhorne Orchard Prize Essay, "Revelation and Evolution," Prof. Price merits no such criticism. He has clearly shown from the Bible that Evolution is entirely out of harmony with Revelation.

However, perhaps more space could have been devoted to the biological aspect of Evolution and the doctrine of the unity of type. The Darwinian theory is still held by many people to-day, among them leading religious lights like Bishop Barnes. The argument centres around the questions of Special Creation and the process of Evolution supposed to be proved by the similarity of type. In spite of the fact that the missing link has not yet been discovered, many still have faith in the Darwinian theory.

Now, it must not be supposed that this similarity of type is an argument in support of Darwin's theory of Evolution.

The fact that a unity of type is adopted where a unity of function is aimed at, and that increasing complexity of type is associated with increasing complexity of function, does not necessarily suggest that

C is derived from B, or B from A, but much more forcibly that they were all derived from the same source—the master mind of God.

Lieut.-Colonel F. MOLONY writes : I have edited your *Transactions* for some years now, but I do not think I have ever passed a discussion with so many misgivings as to its effects as I feel about this one.

In 1921 I had the privilege of reading a paper before this Society on " Predictions and Expectations of the First Coming of Christ." The main object of that paper was to prove the reality of inspiration, and our Secretary was so good as to say that I had proved my thesis up to the hilt.

We all know that the historicity of Genesis has been established as far back as the fourteenth chapter inclusive. And I myself believe in the inspiration of the whole book, but hold that we have no right to assume that inspiration includes infallibility.

May I, then, be permitted to point out that, although whole libraries of books have been written on the subject, Christian apologists need be very little concerned in defending the inspiration of the early chapters of Genesis.

Most of us believe that Moses wrote the Pentateuch : but how ? Surely he wrote Genesis as an editor of older documents, but the other four books as a witness. It is his reliability as a witness that is important for the defence of Revelation ; and it is very little affected by the trustworthiness of his judgment as an editor. To hold Moses responsible for all that is said in Genesis would be almost as unfair as to hold me responsible for all that is said in this discussion.

Our lecturer has offered us new ground for distrusting Evolution. But his geological theories are by no means accepted as yet on this side of the Atlantic. Yet, on the strength of them, we are apparently invited to open a new crusade against Evolution !

I think this would be a foolish thing for us to do, and beg to associate myself with Mr. Weller's remarks.

AUTHOR'S reply: I fully sympathise with our worthy Hon. Secretary in his incredulity about all the great geological changes of the past having been caused by the world-catastrophe of the Deluge. For one who has at all travelled about the world, it does seem preposterous to say that all the tremendous phenomena which we see were produced by one great world-convulsion.

But I have never affirmed this. I do not wish to dogmatise on this point. I don't know.

But one thing I do know. There is no method worthy of being called scientific by which we can affirm that the trilobites, for example, lived and died long before the ammonites and the mastodons came into existence. There is no way to prove logically that the trilobites and the graptolites may not have lived contemporaneously with the dinosaurs, or that the dinosaurs may not have been contemporary with the mastodons and the other elephants, or with man himself. Fortunately, I have already discussed this topic at some length in a paper read last year before the Victoria Institute ; hence I need not go into the matter further here. I would also refer the interested reader to my College Text-book, " The New Geology," where this subject is dealt with quite fully. This book may be obtained in this country through The Stanborough Press, Watford, Herts.

On this point we now have a very interesting recent discovery. *The Illustrated London News*, of May 9, 1925, gives a reproduction of a drawing of a dinosaur which has been found on the walls of a canyon in Arizona, U.S.A. This drawing was made by prehistoric man ; and it proves conclusively that, either the one who made this drawing, or some of his ancestors, must have been familiar with the form of the Diplodocus or some similar dinosaur in real life. An accompanying drawing found on the same canyon wall shows a man fighting with a mastodon or a similar kind of elephant, perhaps a Mammoth.

Thus we have objective proof that man was contemporary with both the dinosaurs and the ancient elephants. The latter were thus living side by side in the same world ; and thus we have one further proof from objective fact of that great principle of the contemporaneity of these ancient faunas, a principle which we have already found to be demanded by strict scientific logic.

Now, the problem before any common-sense view of geology is this : *How did all these great animals (and many other kinds could be included) become extinct?* No doubt we can easily work ourselves up into a feeling that any world-catastrophe sufficient to bring about such an extinction would be quite " impossible." I have little faith in such *a priori* methods of reasoning in the face of

objective proof, such as we now possess. At any rate, How did all these animals become exterminated from all over the world, and exterminated apparently at once?

This, I claim, is the great outstanding problem of Geology—or of all natural science, for that matter. A very large amount of new evidence has come to light which tends to support the views of the New Catastrophism in Geology. A re-examination of this entire subject is the next thing in order. In the meantime, it should be remembered that the strictest logic must be applied to all these studies regarding the early days of our world, the same hard rules of logic which we would apply to a problem in physics or chemistry or astronomy. For it is already as clear as sunlight that very many ideas now confidently held in the name of Geology will not stand critical inspection. The geological theory of the successive forms of life is without doubt the weakest point in the theory of organic Evolution. How long are we going to retain this part of the Evolution theory in our orthodox discussions of the problems of science and religion?

The following statements were made in the course of the proceedings:—

Before the reading of Prof. G. McCready Price's paper, the HONORARY SECRETARY read the following motion which had been passed by the Council, of which they invited the assent of the Meeting:—

> "Having heard with profound sorrow of the death of Mr. Arthur Warwick Sutton, J.P., F.L.S., this Meeting places on record its sense of the great loss sustained by the Victoria Institute, of which Mr. Sutton had been a member for twenty-two years, as well as rendering valued service as Member of Council, Treasurer, and latterly as Trustee. Held in high honour as a Christian gentleman, Mr. Sutton was a warm friend of the Institute, and his co-operation—ever courteous and worthy of confidence—will be greatly missed in the coming days."

The CHAIRMAN then called on Prof. G. McCready Price, M.A., to read his paper, the Langhorne Orchard Prize Essay, entitled "Revelation and Evolution—Can They be Harmonized?" and when it was finished, handed him, in the name of the Council, a cheque for 20 guineas, being the Langhorne Orchard Prize, founded by surviving relatives to perpetuate the memory of the late Prof. H. Langhorne Orchard, a Vice-President of the Institute. Dr. J. W. THIRTLE, the Chairman of Council, added a few words in memory of the Professor, and explained the founding of the Prize and the nature of the triennial competition in connection therewith.

678TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W. 1, ON MONDAY, MAY 4TH, 1925, AT 4.30 P.M.,

PROFESSOR THEOPHILUS G. PINCHES, LL.D., M.R.A.S., IN THE CHAIR.

A paper by Professor Edouard Naville, LL.D., D.C.L., a Vice-President of the Society, was read, on "The Land of Punt and the Hamites."

The CHAIRMAN explained that, much to the regret of the Council, Professor Naville was not able to be present to read his paper, which had unfortunately arrived too late to be printed and circulated to members.

The Minutes of the previous Meeting were read, confirmed, and signed, and the HON. SECRETARY announced that the following gentlemen had been elected as Associates:—The Rev. Professor L. B. Henderson, A.M., B.D., and Herbert B. Cole, Esq.

The CHAIRMAN then, after a few general remarks on the subject, called on the Hon. Secretary to read the paper, in Professor Naville's absence.

In introducing Professor Naville's paper: "The Land of Punt and the Hamites," the Chairman spoke of the importance of the subject. We knew something of the Hamites, but Punt was not a district with which ordinary Bible-students were acquainted. It was well known, however, to Egyptologists, and seems to have been a land of romance even to the Egyptians themselves. We might therefore expect that Professor Naville had something of considerable interest to tell us.

THE LAND OF PUNT AND THE HAMITES.

By PROFESSOR EDOUARD NAVILLE, D.C.L., LL.D., F.S.A.

IN the Egyptian inscriptions we frequently find the mention of a land with which the Egyptians were connected by special links, and to which they several times sent expeditions. It is chiefly referred to in religious texts because it was the land of frankincense, which was much employed in the ceremonies. It was the land which we shall call the land of Punt, though it is possible that the vowel of the name was lengthened, as it is shown by the Greek name Πουάνου πόλις.

The proof that the Egyptians considered that there was a sort of parentage between them and the land of Punt is that its name is never written with the sign of a foreign country, although in the

inscriptions even districts which were borderlands still have that sign when they belong to the administrative divisions of Egypt.

The first time we meet with the name of Punt is under King Chufu of the IVth dynasty. One of his sons has a slave from Punt. But a regular expedition to Punt is first recorded under the Vth dynasty, under King Sahura, as we know from the inscription of the Palermo stone. We see there that the king, building his sanctuaries, sent to the land of Punt to get there, in the first place frankincense, also a metal to which I shall have to revert, and which I believe to be copper, and a yellow mineral which I cannot determine. This shows that in that remote time already there was a commercial intercourse between Egypt and Punt, and the trade probably was by sea. It must have been regular under the Vth dynasty and afterwards, since we find the name of the frankincense in the texts of the pyramids of Unas, the last king of the Vth dynasty, and Teti, the third king of the VIth. Occasionally, at that epoch we find mention of Punt, from which a dancing dwarf is brought by travellers who went South; but what proves that there was a trade by sea with Punt is what we read in an inscription of an officer called Pepinekht, who was sent by King Pepi II of the VIth dynasty somewhere on the coast of the Red Sea, to avenge the death of an officer who had been killed by the people of the desert while fitting up a transport ship for Punt.

The first account of a naval expedition to Punt is given by the last king of the XIth dynasty, Sankhkara Mentuhotep. An officer called Hennu is ordered by the king to send a vessel to Punt, to bring fresh frankincense from the sheikhs of Punt. Hennu starts from Coptos with a troop of 3,000 men. His journey to the harbour on the Red Sea seems to have been difficult. It is possible that he had to open a new road to the harbour. He seems to have encountered on his way some hostility from the natives, and he had to dig several wells in the desert. At last he reached the sea: "I made the ship and I dispatched it with everything." He did not go himself with the ship, but he stayed till its return. The voyage does not seem to have been very long. Probably the ship went to the nearest port of Punt, which, as we shall see, was on the Arabian coast. After the ship's return, Hennu went back to Egypt, and he boasts of having brought for the king all the products he had found in the districts of "God's land."

Here Punt is named by its Egyptian name, God's land or the

divine land. It received this name because, though it was well known, it was considered as the land of wonders, of marvels. What was very highly valued among the products of Punt was frankincense. It was for frankincense that the Egyptians sent expeditions to Punt. Other valuable things would come from there, but the odoriferous gum was the most precious, and it was much more prized for temple worship and household consumption than it is now. Punt was renowned for its perfumes; it was a sweet-smelling country. The greatest compliment which may be made to a woman is that she breathes all the perfumes of Punt. Punt and frankincense are nearly always connected, and the choicest frankincense, called by the Egyptians *anti*, comes from Punt only.

Frankincense is a gum produced by a plant which botanists call *Boswellia Carteri*; it grows to the height of 4 or 5 metres. The gum is gathered at the present day by the Arabs by cutting the stem, and, after seven days, collecting the gum which has exuded. But there are other varieties of *Boswellia*, which are trees, and which emit the gum which dries up in small patches along the branches, as we see in the pictures of Deir el Bahari. These trees are called sycamores of incense, and they are brought in pots from the land of Punt to be transplanted in the garden of Amon at Thebes, where they grow to a great height.

Where was the land of Punt which was so renowned for its incense? We have a picture of a part of Punt, to which the queen, whom I shall call by her familiar name Hatasu, sent her vessels, in the sculptures of the temple of Deir el Bahari. They were partly brought to light by Mariette; all that remains of them may be seen after the excavations which I made there for the Egypt Exploration Fund. It is a pity that these walls have been so much destroyed, even not very long ago, by travellers. The queen relates that it is on the express order of Amon that she sent an expedition to Punt, to the land of incense, after the god had promised her that, while her predecessors had received the marvels of Punt in return for large payments, "the incense terraces will belong to her," the god will give success to the expedition.

The queen sends an expedition, which has not a military character; it is not intended to make the conquest of the country, but to establish regular commercial intercourse. The five ships which are sent to Punt carry a certain number of soldiers, but there is no fighting, only trade carried on by exchange

of wares, as it is still done at the present day with African populations.

The ships anchor in a harbour which is certainly African; certain animals and plants which we see there are exclusively African, like the giraffe, certain monkeys, the elephant or rhinoceros, and the ebony wood. The population is mixed. The Puntites are the rulers, the land is theirs, but a negro population has established itself there, black and brown negroes. We see their huts, which seem to be made of wicker-work, probably palm-stalks; they are built on poles and reached by a ladder. We have here the picture of a kind of commercial factory, where the wares of the country were sold and the goods of the African natives were brought for barter. There is no doubt that what is shown to us is a harbour on the African coast; Punt was therefore a part of Africa. How far did this settlement extend on the coast of the continent? This is a very much discussed question. Some authors, like Glaser, maintain that Punt went as far as Mashonaland, that the Puntites knew the gold mines of South Africa, and that they raised the extraordinary constructions of Zimbabe. Mariette, who first published these inscriptions about Punt, considered that the land of ointments and of all sorts of fragrant gums, whither the Egyptians repeatedly sent expeditions on purpose to get frankincense, must be the *Aromatifera regio* of the Greeks and Romans in Africa; it meant the present land of the Somali as far as Cape Guardafui; but the Latin name applies also to the Arabian coast, and, in fact, we find that in the inscription Punt is spoken of as being on both sides of the sea. And when the countries are enumerated which are the cardinal points of Egypt, Punt is sometimes East, the Arabian Punt, and sometimes South, the African.

The Puntite is a tall, well-shaped man, of a type which certainly belongs to the Caucasian race; his hair is flaxen and is divided in well-made plaits; his nose is aquiline, his beard long and pointed; he wears a loin-cloth. The chief has a dagger in his belt. The type is very like that of the Egyptians; except in the hair there is hardly any difference between Egyptians and Puntites, who are loading together the five ships sent by the queen, and especially carrying the incense trees in pots, which are to be planted in the garden of Amon. The appearance of the Puntites such as we see them portrayed at Deir el Bahari shows that they formed part of the Hamitic stock, and, as we shall see further, that their original home was Arabia.

It is something extraordinary that the name of Punt is exclusively Egyptian. No other people in antiquity, neither the Hebrews nor the Babylonians, the Assyrians, or the Persians, knew that name, nor is it quoted in the inscriptions of South Arabia. It seems that Punt does not designate a definite country, but an ethnic group, and that it means the old population of southern Arabia and the eastern coast of Africa, a vast region which is called by Greek and Latin authors Æthiopia.

That the coast of Arabia from the Persian Gulf belonged to Punt is certain. Let us remember that Punt is the land of frankincense, and the land of frankincense from which there was since a remote antiquity a trade in this much valued ware is Arabia, and chiefly the coast as far as the Erythrean sea, the Persian Gulf. Even now the trade in incense from the Arabic coast is still extant. The region where it grows is restricted to a small part of the southern coast, which has been visited and described by Bent. The trade is now carried on by Indian merchants.

Lepsius has been the first to compare the name of the inhabitants of Punt, of the Puni or Punti, with that of the Phœnicians, and to show that the original home of the Phœnicians was in the Erythrean sea, the Persian Gulf. The name Phœnicians and the name of the bird Phœnix come from there. The Puni extended rapidly over the Arabian coast, and the Eastern coast of Africa. As I said, Dr. Glaser, who is now the chief authority on Arabia, does not hesitate to assert that they conquered Mashonaland, and that Zimbabe was one of their colonies, since some of the monuments found there have the greatest likeness to some of the Phœnicians.

As to the Puni settling on the Syrian coast, we do not know when that took place; but they were Puntites. Herodotus, speaking of them, says: "This nation, according to their own account, dwelt anciently upon the Erythrean sea, but, crossing thence, fixed themselves on the sea-coast of Syria, where they still inhabit." This statement is confirmed by Strabo, who even goes beyond Herodotus, and attempts to determine the original habitat of the Phœnician race, and discovers that certain islands, those namely of the Bahrein group, were the first settlements of the nation, from which they started to found their great cities. Trogus Pompeius undertakes to give the causes of their migration. But we shall not follow these two later authors; we shall be content with the statement of Herodotus.

We find occasionally, for instance in the inscription of Hennu, that the land of Punt is called the Red Land, and the sea which washes its shores is called Erythrean, the Red Sea. Various explanations have been given of that name. The question seems to me to have been solved by a Chinese scholar, M. Léopold de Saussure, who, studying Chinese cosmology, has shown that colours are attributed to every one of the cardinal points—black to the North, red to the South, green to East, and white to West, the central part of the earth, occupied by the throne of the sovereign, being yellow. This conception is not special to the Chinese; the cosmology of the Zend Avesta shows that the theory of the five colours existed in the Iran. A curious proof of it is what we read in Herodotus: "The Persians inhabit a country upon the Southern or Erythrean Sea." So that this name, the Red Sea, the Red Land, means only the Southern, for we read in the same author: "Arabia is the last of inhabited lands towards the South, and it is the only country which produces frankincense, myrrh, cassia, cinnamon and ladanum."

If the coasts of the Persian Gulf and of Arabia were the original home of the Phœnicians, when did they settle on the Syrian coast, and which way did they follow to reach that region? It seems excluded that they came by sea, unless their migration goes very far back, when, according to geologists, the Red Sea, of which we know that in historical times it went further north than at the present day, communicated with the Mediterranean. But it seems more probable that the Puni came by land and occupied more than the coast of Palestine, for we read in Exodus that the Israelites did eat the manna until they came unto the borders of the land of Canaan. Here the LXX read, "until they came to a part of Phœnicia." The word Phœnicia does not occur in Hebrew, which has only Canaan or Canaanites, while in the LXX, Kanaani, Canaanite, is often translated by Phœnician or by merchant, "trafficker." This raises an important question: Does the word Canaanite mean only "of Phœnicia," or were there two different races in the country? This seems probable, since we see such great difference between these two nations. The Phœnicians are quiet and peaceable, a nation of traffickers, skilful in navigation and in the arts both useful and ornamental, unwarlike except at sea; whereas the Canaanites are fierce and intractable warriors. Were the Phœnicians the Puni, the first inhabitants

of the country, or did they meet in their migration with this warlike population? The ethnic table of Gen. x gives them a common origin. They are descendants of Ham, who was the father of Canaan, whose first-born was Sidon. Another son was Heth; he begat also the Jebusite, the Amorite, the Girgashite, the populations which are said to inhabit Canaan. Probably there must have been in later time a Semitic invasion, which introduced Semitic language. This question is still very obscure. Let us hope that the excavations in Syria, especially at Byblos, which have already given such surprising results, will bring some light on the early migrations of those peoples.

We have seen that the land of Punt was a vast territory comprising the Persian Gulf, the south coast of Arabia, and certainly also the coast of the present Red Sea on both sides, for on the Arabian side Ptolemy mentions Πουάνου πόλις. which is the Egyptian name, and which, according to the map of the geographer, would be opposite the present Italian colony of Erythrea. The name of Punt, as we said, does not occur anywhere except in the Egyptian inscriptions, and we must not consider it as referring to a definite state organized as such. It is a geographical name applying to the region which was occupied by the Puni, these Hamites of the same stock as the Egyptians, but in the first place to the region producing frankincense, the coast of Arabia and that of Africa. It is clear that those Hamites not only had a wide expansion, but they were also among the first civilized nations and that they imported their civilization into some of the lands which they occupied or where they made colonies.

The name of Punt does not appear in the list of nations of Gen. x. But it must be noticed that in that chapter the posterity of Ham is more fully described than that of his two brothers, even of Shem, the ancestor of the Hebrews. It seems that when the author wrote this list the Hamites were an important part of the nations of the world. How is it, then, that Punt does not appear in it? It was thought at first that Punt was Put, who is given as the third son of Ham; but Put is the only one whose descendants are not given, as if he had not had any. I believe with Dr. Glaser that Punt, this ethnic group, is called in the list *Cush*, which is a name of the same kind, and must not be considered as the African Ethiopia. Cush certainly meant a part of Asia. The Cushites are not black negroes, they are found in Arabia and Mesopotamia. We see that in the

Bible, when speaking of the rivers coming out of Eden, it is said that the second river is Gihon, "that compasseth the whole land of Cush," the third and the fourth river being the Tigris and the Euphrates; it is clear that here Cush cannot be a part of Africa, and must be Asiatic.

If we look for the starting-point of the Puni and the country where they reached the highest degree of civilization, it is certainly the south of Arabia, a country which in antiquity, even in the time of Diodorus, was very different from what it is now. The Greek historian speaks several times of the extreme beauty of that country, which was called "Arabia felix": "Coming from the waterless and desert country, Arabia differs so much from it because of the abundance of fruits which grow there, and all other wealth, that she is called the happy Arabia." The historian describes all the odoriferous plants which grow there, cinnamon, cassia, and others; but that is not enough, the earth itself emits vapours of sweet scent: "All kinds of cattle are found there, and the country is watered by many rivers; many villages and considerable cities have been founded there on high terraces or hills and in the plain. The metropolis of the country is called Sabæ. This nation differs not only from the neighbouring Arabs, but from all others, by its riches and its magnificence. Since, owing to their remoteness, they never were under a foreign domination and never were ravaged, the mass of accumulated gold and silver is overflowing, especially at Sabæ, where is the royal residence; all kinds of drinking-cups are adorned with reliefs in gold and silver, beds and tripods have feet of silver, and all the furniture is of incredible magnificence. The great columns of peristyles are partly covered with gold and have silver ornaments on their capitals; the panels and the doors are adorned with mouldings of gold and precious stones. In all the construction of houses they show a lavish expenditure of silver and gold, of ivory and the most precious stones, and of all things which other men consider as most valuable."

It is clear that this description of Diodorus is not that of an eye-witness. It has been related to him with the amount of exaggeration which is generally found in descriptions made by Orientals, as any one who has lived with them can easily perceive. We shall have to compare what the Greek historian says to what we see in the Egyptian inscriptions.

It is certain that from an early epoch, the Arabian coast of

Punt was divided into many states which became very powerful, owing to the fact that the Puni were a seafaring nation addicted to trade. Some of these states seem to be of late date—the Katabanians, the Minæans, the Himyarites—and it is clear that the country was subjected to Semitic invasions. It is shown by the fact that the South Arabian inscriptions, which are the only literary documents which we possess, are all in Semitic languages. The history of these South Arabian kingdoms is not much known; it is only quite lately that we have obtained more information about them, chiefly through the journeys, first of Halevy, and afterwards of the German Glaser, who went to the country and collected about 2,000 inscriptions. The states which are best known are the Minæans and the Sabæans, who occupied what is now Yemen. These two kingdoms had intercourse together. They were peaceful folk and their business enterprise was widespread. But there were other nations or states more East, in Hadramaut; for Bent, who explored only a small part of that coast which is still now a frankincense country, found there extensive ruins of great cities.

The Sabæans are known to us from Scripture, where they are called Sheba or Seba; we learn there that they were a population of mixed origin. Seba is said to be a son of Cush, a Hamite; at the same time there is a Sheba who is son of Joktan, a Semite. This seems to show that when the author of Genesis wrote, in the regions which have this name, invasions and migrations of populations had taken place, Semites had occupied Sheba, and the name had not changed, so that both Hamites and Semites could vindicate that country as their own. Ezekiel speaks of the traffickers of Sheba who trade with spices, precious stones and gold, Job of the caravans of Sheba; but what shows best the riches of the Sabæans is the narrative of the visit which the Queen of Sheba paid to King Solomon.

Sheba is in the region which the Egyptians called Punt, and certainly there must have been a commercial intercourse between the Arabian coast and Egypt. Let us revert to the picture at Deir el Bahari, and see what the expedition of the queen brings back from Punt. The most important product, which alone would have induced the Egyptians to make a naval expedition, is frankincense; this was the special property of the Puntites. In loading the ships, frankincense and the pots where the frankincense trees are planted, are carried only by the Egyptians and Puntites, not by the negroes, who carry

ebony and bring various animals. After the landing of the ships on their return, the first thing they unload is frankincense, of which an enormous heap is made; the trees are planted in the garden of Amon. The incense is weighed; the quantity brought is said to be 3,333,300 *deben*. A *deben* is 90·95 grammes, 10 *deben* is nearly 1 kilog., so that the total weight would be above 300 metric tons.

This weight seems fabulous, but what is still more so is what we see next to it. The second thing which is weighed is a metal which was brought in boxes and which is in rings; it is called *uasem* or *usem*. This word has been translated in various ways. The English egyptologist Le Page Renouf has found the true meaning; it is copper. It is clear that the enormous weight, which is the same as that of the incense, cannot be that of gold. The use which was made of that metal shows what it is; the tops of the obelisks are covered with that metal, the rays of which illuminated the country like the sun when it appears on the horizon. The doors of the temples are said to be made of copper, they were covered with that metal, and it is often said that they project rays like the solar disk; columns are covered with copper, the figures which must shine are made of copper, the walls of shrines have mouldings of that metal, which adorned chariots, thrones, tables and coffers. It is spoken of a big ewer of that metal which was seven cubits in height. This reminds us of what Diodorus says of the furniture of the inhabitants of the "Arabia felix," which, he says, was of gold and silver.

The Egyptians distinguished three precious metals—gold, copper and silver—while the people of Arabia had only gold and silver. This induces us to question whether the gold of the Arabians does not mean two different metals, the real gold and the *usem*—the copper of the Egyptians, which was found in such great quantities. Those ancients were not experts in mineralogy, nor were they versed in the properties of the different minerals and their nature. They distinguished them by their degree of brilliancy, and they called *gold* two metals of nearly equal resplendency. Copper is very much valued for it, even at the present day, in some parts of Africa. The German traveller, Schweinfurth, who travelled in Central Africa about fifty years ago among natives who were then cannibals, relates his visit to Mounsa, the king of the Monbuttu. For them copper was the precious metal; they had neither gold nor silver. Copper and

slaves were their only money. Mounsa received the traveller in a big hall made of palm wood. He was covered with heavy copper ornaments, which illuminated his body; his sword was of copper; his throne had rings and nails of copper. Behind his throne was a rack on which were arranged several hundreds of lances and picks of hammered copper. The rays of the midday sun, says Schweinfurth, gave to this mass of red metal a dazzling brilliancy, and each of these lances sent forth a fire as of blazing torches. This reminds us of what the Egyptian writers say of the effect of copper doors or obelisks. If we turn to the Old Testament, we find that once Ezra speaks of vessels of fine bright copper as precious, or, as the Hebrew text says, as desirable as gold. Much earlier, we find that in his campaign against Hadadezer, "David took the shields of gold that were on the servants of Hadadezer, and from Betah and from Berothai, cities of Hadedezer, King David took exceeding much copper" (II Sam. viii, 8).

The Jews had different names for gold and copper, but evidently they often called *gold* what, like the vessels of Ezra, was as bright as gold, and would be mistaken for the more precious metal. This is clearly the case where the metal comes from the land of Punt. It is related that the Queen of Sheba (the Sabæans) came to visit King Solomon. She came with a great train with camels that bare spices and very much gold and precious stones. The first thing mentioned in the gifts which she brings to the king are spices; the frankincense of her country, the most valuable product, coming from Punt. Next to it is very much gold. Are we not to recognize there the *usem*, the copper, which came in such great quantity from Punt? When she went away she made a present to the king of 120 talents of gold, and of spices very great store, and precious stones. The writer in Chronicles adds: "Neither was there any such spices as the Queen of Sheba gave King Solomon." She gave him the best frankincense of Punt, which was highly valued. As for the weight of metal, 120 talents of gold, reckoning the much-discussed value of the talent to its lowest, 42 kilog., the gift of the queen would be of more than 5 metric tons of gold, which seems an incredible quantity of that metal. Have we not to understand here the word *gold* as being that bright *copper* which was found abundantly in Punt, and which, according to Ezra, was as valuable as gold?

The same seems to me to be said of another part of Punt, also

mentioned by Scripture; I mean Ophir. It is said that King Solomon made a navy of ships in Eziongeber, "that Hiram sent in the navy shipmen that had knowledge of the sea, that they came to Ophir and fetched from thence gold, 420 talents, and brought it to King Solomon." I cannot go into the arguments brought forward by a German scholar, Moritz, who seems to have established that Ophir is part of the Arabian west coast of the Red Sea. It is certain that in antiquity the Arabic coast of the Red Sea was considered as a country where a great quantity of gold was found, and that was the reason why naval expeditions like that of Solomon and Hiram were sent there. But was such an enormous amount of the precious metal found there? When we read that Solomon's fleet brought back more than 16 metric tons of gold, are we not justified in thinking that the term gold was applied to another metal which had the same brilliancy, but was of a different nature, and was found, and is still now found, in various parts of the world in much greater quantity than gold—I mean copper? In the account of Queen Hatasu's expedition to the land of Punt, an enormous amount of copper is mentioned, and there is also gold, but it is not one of the chief wares coming from the country; after frankincense, ebony and ivory, green or fresh gold from the land of Amu is mentioned, as if it did not come from Punt.

What is fresh or green gold? We do not know, but this shows what we hear from the inscriptions that the Egyptians distinguished several kinds of gold; and it explains to us a passage in Genesis which has not been understood. The second chapter of Genesis, speaking of one of the rivers coming out of the Garden of Eden, the Pishon, says: "That is it which compasseth the whole land of Havilah, where there is gold, and the gold of that land is good." That is an extraordinary remark, which seems rather senseless, since it does not mean pure, which is expressed in Hebrew by another word. What is meant by "good gold"?—good for what? We cannot fancy a kind of gold which should not be good. But this is an Egyptian touch, and reveals the hand of a writer who, like Moses, was well versed in the Egyptian language and its colloquial expressions. In the lists, where are enumerated various kinds of gold coming from different places, also gold from the mountain, or from water, we find distinguished from them "good gold." When they sum up the quantities of these different golds, the "good gold" is one of the units; it is not mixed up with the others. Therefore

there is no doubt that there was a special kind called the "good gold." And, curiously, we have a coin of that metal, a gold coin on which there is no image of a king, no inscription, other than these words: "good gold." When the first coin was found it was held to be a forgery, but for Egyptologists there was no doubt that it was genuine. The word "good" is written in two different ways; one of them is a variant of later time which is rare and could not be invented by forgers. Several samples, of that coin have been found since. It is stamped and not cast and probably it is the beginning of coined money in Egypt.

The passage of Genesis should be translated something like "the gold of Havilah is *the* good gold. Havilah appears twice in Gen. x. Once with Seba, it is a son of Cush, a Hamite; in another place, with Sheba and Ophir, it is a descendant of Joktan, a son of Eber, a Semite. That, I suppose, means that those countries were occupied by a mixed population of Hamites and Semites, so that both considered it as their own. Havilah joined to Sheba and Ophir is certainly an Arabic country. "It produces the bdellium," a kind of resinous gum, of myrrh or balsam; it belongs therefore to the region which is called aromatical, to the Arabian coast, and the inscription of the coin, "good gold," means gold from Arabia. It is not impossible that this good gold from Arabia is that which Diodorus calls ἄπυρος, and of which he says that it is not found in small chips to be joined by fire, but it is dug out perfectly pure in pieces like a chestnut, and of such brilliant colour that when the jewellers set in it the most precious stones it makes the most beautiful ornaments.

Summing up the chief results at which we have arrived, we found that Punt was a name meaning an ethnic group, not a country with definite limits, that consisted chiefly of coastland in Africa and in Arabia; that the population belonged to the Hamitic stock; that one of its tribes, leaving the Persian Gulf, had settled on the coast of Syria, where it became the Phœnicians.

I can only relate in a few words the history of the Puntites and their influence on Egyptian civilization.

The original home of the Puntites seems to have been South Arabia. There they found metal, especially copper, which they were the first to use, and of which they made weapons. From South Arabia they crossed over to the African coast and went down the Nile. In its lower valley they found the Anu, Hamite tribes in the neolithic age, not knowing metal, and which they

easily conquered. One of the first festivals in the calendar, that of "striking the Anu," recorded the conquest. They gave to the native population the impulse to civilization, they seem to have introduced agriculture, and to them must be attributed the invention of scripture, a figure-writing which arose in one of the conquered tribes and spread over the whole country. The conquerors became the Pharaonic Egyptians. All the traditions of the country show that they came from the South. The South always has precedence over the North, and their coming from Punt seems proved by the fact that Punt is never quoted as a foreign country.

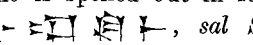
The Egyptian civilization is Hamitic, and it is due to ancient inhabitants of South Arabia, who before historical time settled in the valley of the Nile. This seems in accordance with the traditions of the country and with the scanty information which we have on those remote ages.

Discussion.

In opening the discussion, the Chairman touched upon several points in this noteworthy communication.

He thought that all would agree that they had listened to an exceedingly interesting paper—a paper which had fulfilled the prediction which he had made, that we should find in the land of Punt, as the Egyptians did, a land of romance. It is a pity that we had not any pictures to show, for if we had had that good fortune, the audience would have seen how like an Egyptian the Prince of Punt was, though the Princess of Punt and her daughter, far from having the slim Egyptian type, are ridiculously fat, short and ungainly (W. Max Müller, *Asien und Europa nach Altägyptischen Denkmälern*, Leipzig, 1893)—in fact, they look like caricatures. As he had said, these pictures are well known to Egyptologists, and it is to be noted that they are not only given by Max Müller but also in the great monumental works wherein the tombs of Egypt are figured.

There is no doubt that the radical letters of the name of Punt (or, otherwise vocalized, *Pwanet*) suggest a connection with the name Phœnicia, and, notwithstanding that they spoke Semitic languages or dialects, the Hebrews regarded Canaan, Seba, and Sheba as being,

like the nation to which Nimrod belonged, as being Hamitic. The Philistines, Amorites and Sidonians are also described as Cushites, for they were children of Canaan. These—possibly in alliance—must practically have occupied the whole Peninsula of Sinai. About the time when this paper was to be read, the Chairman was studying certain of the temple-accounts of Lagaš—the province ruled over by the renowned viceroy Gudea—and was then reminded of the two Semitic-speaking Hamitic races, the Amorites and the Sabæans. The former occurs in the Amherst Tablets published under the number 80, and is written  , *Mar-tu-sal*, the Sumerian equivalent of the Akkadian *Amurritu*, "Amorite woman." The reference to the Sabæans, however, is apparently still more satisfactory, as the name is spelled out in full, and appears in the plural  , *sal Sa-bu-u*^{m} (*ki*)-*me*, read simply, apparently, as *sal Sabume*, "Sabæan women." Did these foreigners—and probably others—come from the west or from the south—from the land of the Amorites, or from the district of Punt? The food for the Amorites seems to have been taken by ship, and therefore may have come from the south—the Persian Gulf. In any case, it is probably not too venturesome to suppose that travellers and merchants went to and from the western land of the Amorites and the Arabian region, and possibly to Punt, through Babylonia, finding settlements of their countrymen and countrywomen on the way. It is to be noted that the renowned hero and traveller, Gilgameš of Erech, visited a Sabitu^{m}—in all probability a Sabæan woman—when on the way to find the Babylonian Noah, Ut-napišti^{m}, and received from her instructions as to the road he was to take. The name of this Sabæan woman or goddess is given as Siduri, and she dwelt on the throne of the sea—that is, of the Persian Gulf and the islands of Bahrein—the very place where Professor Naville locates a portion of Punt and the land occupied by their Hamite kindred.

Another point is that of the gold, and the probability that copper was comparable in appearance and value with it. The lavish use of "gold" by the Babylonian kings in their temple-decorations, as related in their inscriptions, seems improbable, and Professor Naville's suggestion offers a possible solution of the difficulty. One of the most interesting inscriptions bearing upon this question is that

printed in the *Cuneiform Inscriptions of W. Asia*, vol. ii, pl. 51, No. 1. We there learn that *Ṣarpat* was the land of silver, *Arali* and *Gab-ua* lands of gold, and *Ḫarḫâ* and *Mas-gungunnu* lands of lead. But to this is added, lower down, that *Meluḫḫa* (Sinai and Meroë) was the land of the *sâmtu*-stone—probably some form of red copper ore—and *Magan*, the land of copper, is mentioned on the same line with it. The general opinion with regard to this last is that it was some part of the district of the Persian Gulf and the Peninsula of Sinai.

Everything therefore tends to confirm Professor Naville's reasoned conclusions :—

" I am sure that when the time comes, you will all agree that this is an important and valuable paper, and will accord it a really hearty vote of thanks."

Mr. Theodore Roberts inquired of the Chairman if there was any connection between the Latin name " Punic " and " Punt." It was interesting, as the lecturer had pointed out, that the descendants of Ham occupy a larger space in Gen. x than the descendants of the other two sons of Noah, which showed they were the most prolific, as indeed was the negro or black race of to-day as compared with the white. It seemed now clear from recent archæological investigations that it was the race of Ham that in both Egypt and Mesopotamia was the first to exercise sovereign power, as the Genesis record indicated, which disproved the Higher Critics' theory that Genesis was put together during the Babylonian exile. All the time of this sovereignty of Ham's posterity, Noah's prophecy that it should be servant of servants remained unfulfilled, but had since been proved to be a true prediction.

The lecturer's view that Cush was not Ethiopia was interesting in connection with the prophecy of Isa. xviii of the restoration of Israel, of which Mr. Roberts could not help thinking that the Balfour note was the beginning of fulfilment, for he knew of no other country which must of necessity send its ambassadors by the sea than this island of Great Britain.

He pointed out that, even in the New Testament, Peter twice mentioned silver before gold (Acts iii, 6 ; 1 Pet. i, 18), no doubt from his being a Jew influenced by the Old Testament. We had explained this priority of silver to gold by its typical meaning

of the redemption price, while gold indicated the divine nature. He was sure that we should gain much from studying the paper with our Bibles.

Mr. WILLIAM C. EDWARDS said: It is much to be regretted that this interesting and instructive paper did not arrive in time to be printed as usual for this Meeting, because one might have had time to look up the authorities quoted, especially Herodotus and Strabo.

Herodotus seems a very reliable man when he writes regarding what he saw with his own eyes, but when he quotes—almost verbatim—what he was told, then one must beware, for they are "tales of the marines." Many of these tales were told for the express purpose of frightening him from going to these places and keeping the secret of the gold and spices rare and precious. He tried hard, and in vain, to find a man who had been to the seas west of Spain, and that shows his earnest quest for knowledge.

Herodotus believed in the close connection between Greece and Egypt. He writes that all the gods of Greece, except a few, came from Egypt.

Now, with regard to the immigrations of the Hamites, what I cannot understand is the curious way some theorists seem to have of saying "this way or nothing." I am prepared to believe that the Hamites came as described in the paper, but in other ways as well.

As regards Egypt, I believe that the first great and main stream came as Abraham did, *via* Damascus down through Palestine and settled on the Nile. Other streams of people came coastwise down the Persian Gulf and through the Gulf of Aden. I suggest that a close study of the various caravan routes may show almost the original lines of these land immigrations.

When later streams came to Egypt they found a lot of low-type people in possession, and, conquering them, became their rulers.

The same thing happened in Greece and India, but in Egypt it was specially true that the Sons of Ham became the servants of servants—the slaves of slaves.

Now, it is a mistake to regard Arabia as entirely barren. Even in the Sinaitic peninsula there are signs, and not a few, that once the country had a plentiful supply of rain.

I remember some years ago, when on a P. & O. steamer, being introduced to the Sultan of Lahej, and discussing this very point. He assured me through his secretary that all they wanted was assistance to store up the plentiful rains that they received during the rainy seasons. His Highness wanted me to visit his country and settle there for that very purpose—of helping make pools like those called Solomon's at Aden.

I remember having read in Marco Polo that in the part of Arabia producing the best spices the Soldan had the monopoly of white incense that he compelled people to sell to him at £10 (livres) per hundredweight, and resold to the merchant exporters at £60.

In many of these matters we are often dealing only with conjectures and traditions.

There is one certain document that tells us about the races, their origin and distribution, and that is the Bible. A few verses in Gen. x give us more absolutely reliable information about these ancient things than all the other writers of antiquity put together.

Again, Ezek. xxvii is full of information about the trade and traders of those distant ages. In Ezek. xxvii two different Hebraic words are translated by the same English word "merchant."* In I Kings x, 15, one of these words is translated "spice merchant," and refers to a country of Arabia, but the translation of the country is in dispute. The two words are *rakal* and *cachar*, and my Jewish friends do not seem able to help me to understand the exact difference. The dictionaries tell us that *rakal* is a prime root for travelling for trade, whilst *cachar* may be something of a pedlar. I suggest that perchance the first is a merchant doing business by ships, and the other refers to caravan dealers.

Let us hope that one day Arabia will become better known, and then many puzzles may be solved, and when they are, I am sure that light will be thrown upon Holy Scripture, and its absolute accuracy again become more and more demonstrated.

---

* To me it is an interesting and suggestive fact, that whilst the Hebrew word translated (Ezek. xvii, 4) "merchant" is *Rakal*, and in Isa. xxiii, 8, *Sachar*, the word in Isa. xxiii, 11, is *Kenaan* (thus also in Hos. xii, 7, and Zeph. i, 11), and *Kenaani* in Job xli, 6, and Prov. xxxi, 24. Was Canaan the "father" of merchants?

679TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W. 1, ON MONDAY, MAY 18TH, 1925, AT 4.30 P.M.

THE REV. CHARLES GARDNER, M.A., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed, and the HON. SECRETARY announced the election, as Associate, of W. Herbert Phillipps, Esq., Knight of the Order of Leopold; also, on behalf of the Council, to their great regret, the death of Mr. William Dale, a Member of the Council, who has read papers before the Institute, and taken part with acceptance in our discussions.

The CHAIRMAN then called on Professor H. Wildon Carr, D.Litt., to read his paper.

A REVIEW OF PHILOSOPHIC TENDENCIES SINCE HEGEL.

By PROFESSOR H. WILDON CARR, D.Litt.

HEGEL died in 1831, after one day's illness, a victim of the first European cholera epidemic. He was in his sixty-second year and at the height of his intellectual achievement. In the years immediately following his death his fame as a philosopher and the influence of his philosophy spread throughout the intellectual world. During his active working years his influence had been largely confined to the class-room, and the works published by himself in his lifetime were too severe in form to appeal to any but the expert. These were, besides some early critical works, the *Phänomenologie des Geistes*, the *Encyclopaedie der Wissenschaften philosophischen* and the *Grundlinien der Rechtsphilosophie*. They constitute the Hegelian system, but they all retained the form of rigorously logical treatises, and, except the first, were practically the text-books which served him as the matter for his discourses to his students. After his death his pupils and friends, among them his two sons, at once combined to issue a complete collected edition of his works.

The *Logik* and the *Rechtsphilosophie* were now published, no longer in their bare propositional form, but with the Ersätze or lecture notes compiled from Hegel's own memoranda and from students' notebooks, and courses of lectures on the Philosophy of History, on Aesthetics, on the Philosophy of Religion, on the History of Philosophy and on Pædagogy, together with such essays and reviews and private letters as were available, were added. The result was that Hegel rapidly came to fill the place in the modern world which we assign to Plato or to Aristotle in the ancient. To his followers he appeared to gather up into himself all the wealth of the speculation of the modern period and to enshrine it in a comprehensive system, to express, as no one had yet succeeded in expressing, the universality of reason and the reign of mind in the realm of nature. What is yet stranger is that, as we look back and see him through the perspective of a hundred years, his grandeur and unique philosophical eminence suffer no diminution.

While the Hegelian philosophy assumed a position which no philosophy seemed to have aspired to before, it yet presented itself as no new thing, no new revelation or enlightenment, but as the direct outcome of the past. It was not a New Jerusalem descending out of Heaven from God, it was the Kingdom of Heaven proclaimed because now the fullness of time had come. Viewed from without, it appears as the paradoxical attempt to deduce the real universe by thinking it; viewed from within, it appears as thought attaining consciousness of its own activity and realizing its creative power. "There is nothing either good or bad but thinking makes it so." And just as the Kantian philosophy had seemed to gather into itself the dogmatism of the seventeenth century and the empiricism of the eighteenth and to enrich thought with a new and higher synthesis, so Hegel, in making explicit the inherent contradiction in the Kantian philosophy and grasping the principle of an effective dialectic, seemed to have attained the crowning achievement, to have resolved the problems of the ancient and of the modern speculation, to have reduced chaos to order and vindicated the rationality of the real. "The real is the rational and the rational is the real."

Hegel's philosophy is the first of the great philosophies of evolution. Evolution as Hegel presents it is creative, yet it is not a time process. The active agency behind evolution is logical process, and logic is not temporal but eternal. It affirms,

however, the urge of a force behind reason which is not that of a blind will to live, but a force inherent in rational expression itself.

The Hegelian system was not without its Achilles heel. This was the nature-philosophy which it enthroned above the sciences. And yet the vulnerability of the system at this point can hardly be said to have been even suspected—it certainly was not disclosed—by the philosophical opponents who criticized Hegel from his own standpoint of post-Kantian transcendental idealism. The bitterest of his opponents was Schopenhauer. To-day, however, Schopenhauer's principle is regarded as not essentially different from the Hegelian. The powerful reaction which for half a century was to overwhelm the Hegelian position originated in an entirely different quarter. It was the strong affirmation of positive science involving the rejection of the whole conception of nature-philosophy, it was Comte and positivism, followed by the great generalization of biology and the advance of the physical and natural sciences, which turned the intellectual attention of humanity in a new direction.

Nearly all Hegelians, whether they are Hegelians of the right or Hegelians of the left, treat the *Naturphilosophie* as negligible. Without disclaiming it or denying the importance which Hegel himself attached to it, they regard it as quite unessential to his system, and as unimportant so far as the principle of the dialectic itself is concerned. In one of the most recent and sympathetic expositions of Hegel, an enthusiastic follower, Mr. W. T. Stace, boldly proposes to throw it over as an encumbrance, and contends that the system gains in stability and self-consistency by the sacrifice. This is impossible. When every allowance is made which can be made for the state of science in Hegel's lifetime, when every possible defence is put forward for the special scientific conceptions and theories which Hegel tenaciously held, it remains true that the success of his dialectic as a philosophical method depends on the passage from thought to reality, from logic as subjective activity to nature as objective law. If physical science and the reality to which it applies are placed out of bounds of the Hegelian philosophy, and if each is considered as independent and free to develop in its own way, it will not be long before the Hegelian philosophy is discarded as useless. On the other hand, it by no means follows because Hegel's judgment was at fault and he himself incompetent and definitely wrong in his formulation of particular scientific theories that the principle of his nature-philosophy is not fundamentally and universally true. This

principle is that the reality which physical science interprets, the reality which presents itself as the direct other to thought, is essentially identical with thought, and that thought in passing over to it finds itself. We understand nature because we find mind in nature, and only to the extent that we find mind in nature. Reality is not an outside which must be brought inside. The objectivity of science points to an opposition *within* thought, not to an opposition *to* thought.

The positivity of science which was proclaimed by Auguste Comte was not a naïve realism nor was it an appeal to common sense. It was a philosophical rejection of metaphysical knowledge, on the ground that it is unattainable in fact and useless as an ideal, and it was a philosophical denunciation of the transcendental method. On the other hand, the matter of the sciences was frankly accepted as phenomenological and the method of science as descriptive and constructive. It accepted Kant's account of phenomena, but had no use for his theory of noumena.

The philosophical value of Comte's *Cours de Philosophie positive* was not great; in a sense indeed it was negligible, but the effect of his principle and his formulation of what he called the law of the three stages was extraordinary, and has left its mark on the whole subsequent development of philosophy. All human attempts to explain the phenomena of nature pass, he declared, through three clearly marked stages, and these stages correspond to periods in the history of mankind: they are the theological, the metaphysical, and the positive. In the first, the direct causes of natural phenomena are attributed to the gods; in the second, to abstractions of thought and mentally constructed fictions; in the third, the search for causes is abandoned, and instead of hypostasizing noumena, phenomena are taken in their first intention. Positive science contents itself with observing uniformities, devising experiments, and obtaining the power to foretell natural events. Comte thereupon devoted himself, guided by this brilliant generalization, to the laborious task of arranging a classification or hierarchy of the positive sciences as a *Cours de philosophie.* Further, he conceived the ambitious design of investing science with the dignity of religion. He founded the Church of Humanity, surrounded it with ceremonial adornments, and fortified it with sacramental sanctions. The idea of a religion of humanity contributed, probably very materially, to the success of the philosophy in Catholic countries, but it had little attraction in the Protestant

countries, and with us it tended to cover the movement with ridicule. Quite apart, however, from the pontifical aims of its founder, the idea of a positivity of science, something quite distinct from philosophical realism, to which he had given expression, derived a new meaning and great driving force from the sciences themselves, which were at this time opening out and showing vigorous vitality.

Quite independently of Comte and outside his influence, there arose a philosopher in England who attracted universal attention and who seemed to be heralding a new era; this was Herbert Spencer. For half a century he was regarded as *par excellence* the philosopher of science and the champion of scientific method in philosophy, and, in our own country at least, he seemed to bear witness to the characteristic bent of the English mind towards empiricism and inductive method. Herbert Spencer's philosophy was conceived and its purpose planned before the momentous event of Darwin's publication of the *Origin of Species* in 1859. It was a philosophy of evolution, but of evolution in a more original meaning of the word than that which it came to acquire in the biological theories. It was the idea of an unfolding or development such as we witness in the growth of a plant or the maturing of an individual. It recalls Descartes's illustration of the whole of philosophy as a tree of knowledge of which the various sciences are the branches. The fundamental idea was that all the differentiations in the later expression or in the various stages of expansion were represented in the seed or germ. When evolution was proposed as an interpretative theory of the origin of species, it acquired a new and different meaning and presented a new aspect.

Darwin's theory of the origin of species by natural selection, consequent on a mathematical principle of a survival of the fittest in a struggle for existence, was of very great importance in philosophy, not because it cut away the ground of the religious belief in the Divine origin of man, created by God in His own image, nor because it offered a natural scientific alternative to the traditional belief in a special creation, but because it seemed to prove the possibility of banishing finalistic interpretation from all the sciences, bringing even life and mind within the scope of a purely mechanistic scheme.

The scientific fatalism of the nineteenth century presents a curious contrast to the theological fatalism which presented a problem to philosophy in the seventeenth century. The old

problem of free will had arisen out of the impossiblity of reconciling the attribute of omniscience in the Creator, with individual freedom of action in the creature. The new scientific determinism rests on a mechanistic conception of nature. Knowledge, in the modern conception of nature, implies a power, theoretically unlimited, of following present fact into future consequences. An omniscient mind contemplating our universe at the time when our solar system was a formless nebula, and possessed of the mechanistic key, would have been able by calculation to determine the actual state, say, of the fauna and flora of the planet, as it would exist in a specified year, just as surely and by the same method as an astronomer can foretell with precision the period of a future eclipse. There arose, however, a somewhat troublesome dilemma in regard to the mind itself, a dilemma which could never be satisfactorily resolved. The mind seemed as though it must be, and yet it was impossible that it could be, included in the scheme. It seemed as though it must be, for nothing can be left outside, and yet to include it is to conceive mind as part of that which it contemplates, and which it can only contemplate because it is itself outside it. A mind, in the words of a contemporary philosopher (Alexander) not only contemplates, it enjoys. Its enjoyment takes the form of æsthetic and emotional experience. Suppose, then, the superhuman calculator to succeed in foretelling the future disposition of the matter and energy of the world system from its state in the primitive nebula, can we suppose that he could be equally successful in foretelling the æsthetic and emotional qualities of that disposition in the experience of minds? Scientific determinism had no place for æsthetic or ethical or religious values. Its world was a system of purely mechanical movement. It might foretell the precise disturbances in the atmosphere caused by an orchestra at a particular time and place, but, in its view, the symphony of sound and its æsthetic qualities would be non-existent. Minds and their experience, it was clear, could not be classed with the phenomena of nature. The difficulty was surmounted by an ingenious theory. The mind, it was said, is no part of the contemplated order of nature, but an epiphenomenon. Mind is a supervening or adventitious effect which itself has no efficiency. It is non-interfering; it has no place in the chain of action and reciprocal reaction in which the real phenomena of the physical world are linked. A difficulty in this way of conceiving mind, however, soon made

itself apparent. The order of nature may be indifferent to mind, but there is, also, an order of mind. How are we to conceive the relation of two orders indifferent to one another and independent? Modern science found itself, in fact, confronted with the main metaphysical problem which had confronted the seventeenth-century philosophers, and it had recourse to the seventeenth-century philosophers for its solution. It adopted the hypothesis of psycho-physical parallelism. This had far-reaching consequences. It gave a new direction to philosophy. Philosophy became a science of psychology, running parallel with physical science, pursuing its own method, and based on the principle of the association of ideas. Philosophy, it seemed, could eschew metaphysics, could be distinctly positive and scientific in its method, and could recognize the claims of the sciences to constitute an order of nature mechanistically determined. The rôle assigned to it was the classification of the sciences, the criticism and justification of scientific method and the determination of the particular place of the different sciences in the hierarchy.

The leader and representative philosopher of the new tendency was John Stuart Mill. The movement prided itself on being characteristically English and on continuing the English tradition. Mill combined the inductive method of Bacon with the empirical principle of Locke and his followers. The scepticism of Hume was to be overcome, not by transcending experience in the manner of Kant, but by a more thorough and persistent effort of logical analysis rendered possible by the advance of science. Thus the challenge of Hume to validate the idea of necessary connection between matters of fact was to be met by a more diligent examination of the inferences from facts which might be expected to establish by induction the causal relation in nature itself; and the independent existence of the external world could be secured by the recognition of things or objects as the permanent possibilities of sensation. Mill was by far the greatest philosophical force in our country at a time when philosophy was at its lowest ebb. The success of science was producing a kind of intoxicating effect in the intellectual world, and, together with an unbounded confidence in scientific method, there was a curious feeling of finality in connection with it. The work of emancipation was accomplished. Much work still remained to be done, but there were no new worlds to discover. The coming generations of humanity would enter on and enjoy the possession of their scientific heritage. Mill was imbued with

the scientific spirit, yet he pursued insistently, and fixed the attention of his age on the philosophical problem of the nature of knowledge and the ground of its validity.

John Stuart Mill died in 1873, and in the same year appeared his *Autobiography*. The book produced in the religious world of that day a kind of electrifying effect. It had a startling aspect. Popular preachers everywhere discoursed on it, and seemed to find in its sad and depressing tone the ideal warning instance they required of the spiritual desolation of a godless creed and utilitarian morality.

The philosophic tendencies which are distinctive of contemporary thought, and to which we are subject to-day, take their origin from the reaction to the philosophic tendency represented by Mill. It was a vigorous reaction and soon became not merely a defensive movement against the scientific tendency, but a powerful reaffirmation of idealism against a materialistic science.

The reaction took the form of a revival of Hegelian idealism. The start of the new movement was the publication in 1865 of James Hutchison Stirling's *Secret of Hegel*. This was a vigorous and enthusiastic exposition of the Hegelian doctrine and method. The secret of Hegel, according to Stirling, was the idea of the concrete universal, an idea implicit in the Kantian philosophy, but explicit in Hegel. Critics, however, found Stirling's exposition difficult and obscure. It was wittily said that if he had really discovered Hegel's secret he had most successfully kept it. For my own part, I can only say that to me there has never appeared anything secret or occult in Hegel. The truth about Hegel is, that he saw with unsurpassed clearness the nature of the reality disclosed in human knowledge, yet it is necessary to add that the system which he constructed on his true principle is a monstrosity. Stirling's book, however, was sufficiently startling. It aroused a new interest in pure speculative philosophy. About the same time Stirling translated Schwegler's *History of Philosophy*. This was perhaps even more effectual, for it presented the basis of the Hegelian philosophy in the history of ideas, and it also presented the opposition of the different schools as a true dialectical progress of thought. Concentrated, condensed and penetrating, it contrasted with the popular *Biographical History of Philosophy* of George Henry Lewes, at that time widely read, written under the influence of the Positivism of Comte, and designed to demonstrate the futility and unsubstantiality of the results of purely rational speculation.

The new influence was strong also at Oxford. It found a leader in T. H. Green, who, in a joint edition with T. H. Grose of Hume's *Treatise*, wrote an introduction which contained a destructive criticism of the empirical method in philosophy. Green's positive theory was developed later in his *Prolegomena to Ethics*. It was the affirmation of a principle of freedom as the necessary postulate of ethical action. The particular form which he gave to this principle was critically rejected by F. H. Bradley, who refers to it in a phrase now almost classic as " a psychological monster." William Wallace's translation of Hegel's *Logic* enabled English students to study Hegel at first hand, and Edward Caird's writings were influential in the same direction. It was F. H. Bradley, however, who was to give the most vigorous expression to English idealism and determine its form for a generation. He represents undoubtedly the greatest intellectual force in English contemporary philosophy. His effective work consists of three books, *Ethical Studies* (1876), *Principles of Logic* (1883), *Appearance and Reality* (1893). His later work took the form of occasional articles, afterwards collected in *Essays on Truth and Reality* (1914). Bradley was a recluse, and, notwithstanding that his books were highly polemical and directed with fierce invective against the popular philosophy of the day, he himself took no part in propaganda or in the application of his principles to actual ethical, social and political problems. Bradley had a colleague, however, who recognized at once the intellectual force and bearing of the new theory; this was Bernard Bosanquet. Though they never collaborated the two names will always be linked in the closest association. Bosanquet developed and applied the logical principle and metaphysical doctrine, which Bradley had formulated, with crusading ardour.

The idealism of Bradley and Bosanquet is a vigorous reaffirmation of the Hegelian principle of a real agency in logic. Without adopting the full Hegelian maxim—what is real is rational and what is rational is real—it recognized in logic the driving force in human experience. It turned its back disdainfully on the formal logic of the associationist school of Mill with its abstract rules of induction. "Association marries only universals" was its startling counterblast. Its metaphysics was clear and unambiguous. Reality is experience. Experience is first an undifferentiated unity of feeling below thought; then a disruption of thought which distinguishes existence from its content, the *what* from the *that*; finally, a unity above thought, yet enriched by

it, an absolute experience in which contradictions are reconciled.

Probably no philosopher of our generation has proved so thought-provoking as Bradley in his dialectical arguments or so unconvincing in his positive conclusions. The reason is not far to seek. Scientific discovery has orientated the philosophical interest in a new direction. Positive science has raised definite metaphysical problems. As in the days of Descartes and Galileo, we are being called upon to adapt our minds to a revolution in our fundamental ideas as to the nature of the cosmos. In the biological sciences the principle of evolution has changed the whole scheme of what we used to call natural history. In the physical sciences the invention of the spectroscope has made possible for the first time a direct and intimate knowledge of the constitution of the physical universe, and the discovery has falsified all our preconceived ideas. Finally, the mathematical sciences have completely subverted the familiar notions of space and time on which, since Newton, astronomical measurements have been confidently based. Just as the Copernican discovery imposed on us the necessity of adapting ourselves to the veritable paradox of the Antipodes, so the still more fundamental discovery of Einstein is imposing on us to-day the far harder task of adapting ourselves to the greater paradox of universal relativity.

All the tendencies in contemporary philosophy have been influenced, whether individual philosophers have acknowledged it or not, by the scientific revolution. It is impossible that it should be otherwise, because what the new principle in science really challenges is the old universally accepted distinction between truths of reason and matters of fact. The barrier which has seemed to separate philosophy from the sciences is effectually broken down.

The last thirty years, which comprehends the most astonishing advance in scientific knowledge with the completest revolution in fundamental concepts, has been accompanied by three well-marked tendencies in philosophy: these are pragmatism, new realism, and new idealism. The terms "new realism" and "new idealism" are often objected to by the philosophers who are their exponents, but there are no other accepted class terms which draw attention to the characteristically modern scientific significance of the doctrines.

Pragmatism was an anti-intellectualist movement, appearing at first, in this country at least, as a strong reaction to the

Hegelianism of Bradley. It called itself personal idealism to emphasize its opposition to the theory of the absolute and the doctrine of degrees of reality. It carried the opposition to such an excess that it soon came to seem to be defending, under the banner of Protagoras, "man the measure of all things," an extreme subjectivism and undisciplined caprice. Its theory that truth is what works, that we do not discover what is true, but verify or make true, led to the idea of what was named a tychistic universe. Beneath its superficial extravagance, however, it was impossible not to see that it was emphasizing a principle which was finding abundant illustration and proving brilliantly successful in scientific research.

The positive counter-doctrine to intellectualism has not come, however, from the pragmatists, nor as a result of their frontal attack on formal logic, it has come from Bergson. The theory of creative evolution is a reasoned doctrine, free from the extravagances of pragmatism, because based on scientific principles and supported at every stage by an appeal to positive facts. Its far-reaching effects have been felt in science quite as definitely as in philosophy, and it bids fair to stand out as one of the distinctive achievements of human thought in our age. Creative evolution is not a systematic philosophy, it is a new interpretative principle of experience. It rejects the view that either the intellect which enables us to comprehend the material world or the material world which confronts the intellect is absolute or existent in its own right. Each is complementary to the other, and both are the outcome of a creative evolution. The intellect is a mode of conscious activity, and matter is the aspect the world assumes to it, and both intellect and matter are generated by the evolution of life. Life manifests itself in modes of activity to which correspond objective actions. Life itself is the spring or impulse of an inner force needing expression, a *vis a tergo*; it endures by new creation.

From this standpoint a wholly new method lies open to philosophy. Bergson names it intuition, and it is around this doctrine that the main controversy has ranged. The philosopher can and must make the effort to get for himself a direct and immediate view of the reality, from which the intellect has been formed, by a kind of nuclear condensation, as the means or instrument of accomplishing a particular kind of action. This intuition is possible, first, because the philosopher is himself, as it were, installed within the reality he lives and can therefore

view it from within; and, second, because the intellect itself reveals itself as one only among other and alternative modes of activity. Instinct, and even the completely unconscious mode of vegetable life, are, like the intellect, the outcome of one creative evolution.

If Bergson's theory has been mainly inspired by the problems of the biological sciences, the predominant interest of new realism is in physics and mathematics. Realism is primarily a theory of knowledge; it starts from the fact that the immediate objects of knowledge are sense-given, and it seeks to establish the identity of sense-data and the physically real entities which have external relations to one another. It aims, in the first place, at getting rid of any occasion for a representative theory of knowledge, that is, a theory which interposes ideas between the mind and its objects. It claims to avoid this necessity by rejecting the old distinction between ideas and things, and replacing it with the distinction between acts and objects. In the knowing relation, what is mental is always and only an apprehending act—sensing, perceiving, conceiving; what is non-mental is the object known—sensation, percept, concept. The physical world consists, therefore, of sense-data and relations; there are no intermediate entities with only an ideal existence, and no ultimate entities, minds or things, with an independent real existence. Above all, what the realist emphasizes is the objective character of the external world. The activity of the mind in all its acts is an activity of contemplation, not of interference; it is an awareness or a discerning of what already exists.

The movement which I have named new idealism is represented by the Italian philosophers of the Hegelian school, Benedetto Croce and Giovanni Gentile. It is in no sense an alternative theory of knowledge to that of the new realists, for it can hardly be said to come into contact with their theory or to be in the least disturbed by their problem. It approaches the problems of philosophy and conceives the task of philosophy from an entirely different standpoint. It starts with the actual reality of the human world as it is presented in art, in religion, in history in economical and social institutions, and in philosophy. This actual reality is *prima facie* and fundamentally spiritual. In its integrality it is mind or spirit. Scientific reality has its place in it. It is not, however, the basis out of which the human world has evolved and on which man has learnt to impose values; on the contrary, science is seen to be a purely abstract and mainly

artificial construction, having a practical end and narrowly economic value.

It was the æsthetic doctrine of Croce which gave the impetus to the new movement. It seemed to reconcile at last the long-standing opposition between the clear and distinct ideas of the understanding and the obscure and confused ideas of sense which had persisted throughout the modern period from Descartes to Kant and from Kant to present times. When we study a work of art—a painting on canvas, a sculptured stone, a poem in words, a symphony in sounds—we do not begin by studying the material —canvas, pigments, marble, sounds—in order to discover what they mean to the chemist or physicist. The essence of art is the intuition of the artist which he has found means in the material to express outwardly. The reality of art as art, what makes it art, is its ideality. Art is altogether spiritual, but the spirituality of art is of a distinctive kind and definite order. Art is the expression of an æsthetic, not of a logical, activity. It is the creation of images, not the creation of concepts. It is the first stage of what Croce distinguishes as theoretic from practical activity. Man is first an artist, he is also a philosopher, but art conditions and is not conditioned by philosophy. Mind or spirit expresses itself first in the creation of images—subjective, particular, individual; then in the creation of concepts—objective, concrete and universal.

Croce's contribution to philosophy is especially valuable from the fact, which he has explained in a short autobiographical memoir, that he was not drawn to it by any speculative interest nor actuated by academic motives. His reflections on art and literature and history, which have been his chosen subjects of research, led him to the philosophical problem. The result has been a complete philosophy of mind (*filosofia dello spirito*). Mind is conceived as pure activity and as inclusive reality, developing in itself a dialectical progression, not in triads like the Hegelian dialectic, but in comprehensive stages. He distinguishes the two-fold degree of a theoretic activity, æsthetic and logic, this theoretic activity being itself also the first degree of a practical activity with a twofold degree, economic and ethic. Mind is presented as a life completing itself in finding expression for four values, comprehended under the pure concepts: Beauty, Truth, Utility, Goodness.

The most important influence of the new idealism, so far as the fundamental metaphysical or ontological problem is concerned, is

the concept of history. We ordinarily think of history as a record of the past. We suppose the historian to be able, by his skill in interpreting records, to set forth events as they happened to the actors and as they presumably were observed by disinterested spectators. The idea underlying this conception of the historian's task in rehabilitating the past is, that every historical event, such, for example, as the assassination of Cæsar in the Senate House, contains a core of absolute, static, substantial reality, and that it is this reality, made by the past eternal and unchangeable, which the historian must disengage in its naked truth. According to the idealist view this is untenable. There was not in the past, and there is not in the present, any reality indifferent to the living activity of the individuals into whose experience it entered, and independent of it. Hence the paradox of the new idealism—the identity of history and philosophy. All reality is history and the historian presents to us not the past as it was but the past as it is, not something unchangeable but changing as we change. In the exposition of this concept the last remnant of the Cartesian dualism is eradicated from philosophy and the concept of pure activity is rationalized. Thus the death of Cæsar is not the reality of abstract fact, nor is it the truth of a definite proposition or set of propositions which can be stated with mathematical precision and accuracy as, for example, that at a certain moment in a certain definite place the heart of the man known as Cæsar ceased to beat. No accumulation of such facts is history, because for the historian the reality of Cæsar's death is its ideality. The records may be true records, but as abstract facts they have no independent meaning and no historical value. The past as past is action accomplished. It is what it was, unalterable. But in this aspect the past is unknowable. History is knowledge of the past, and this knowledge lives and grows in the present and draws its nourishment from the actual present.

It is the development of this idea of the complete ideality of history which especially characterizes the philosophy of Gentile. After long association with Croce he has ceased to collaborate with him, not on account of disagreement, but in order to give expression to a principle which diverges from Croce's theory in an important particular. Gentile finds embarrassment in the clear outlines and sharp contours of Croce's scheme of the twofold degrees. It seems to him to emphasize an individuality

which has no place in ultimate reality. His concept of reality is of a pure universality, the theory of mind as pure act. Croce has criticized his friend's doctrine as tending to a philosophical mysticism in which all real distinctions are lost. Gentile has defended his theory against this charge, perhaps successfully, but the two philosophers certainly illustrate in the divergence of their views the two main divergent lines in contemporary philosophy, one towards the affirmation of individuality and personality, towards a monadic concept, the other towards the transcendence of individuality and absorption in the absolute, towards a monistic concept.

The last influence in contemporary philosophy which I will mention in this survey is that which has come in recent years from the formulation and adoption in mathematics and physics of the principle of relativity. This principle seems to me to have the most important bearing on the problem to which I have just alluded, the problem of the meaning of individuality. Einstein's achievement is the demonstration of a working mathematical formula for the laws of nature, universally applicable in despite of our ignorance of an absolute system of reference and without the necessity of postulating one. His discovery is that the actual universe, the subject matter of physical science, only exists in and for observers in systems of reference moving relatively to one another. His principle is that each observer in such relatively moving system co-ordinates the universe from the individual standpoint of his own system to which he is attached and which he regards as a system at rest. It is the acceptance of this principle in science which seems to me to have brought a deciding influence to bear on the concept of individuality.

In conclusion, it may be that throughout this rapid survey of the influences which have determined and which are determining the directions of speculation since Hegel, I am myself influenced by my own predilections. No one is a disinterested spectator of time and eternity. When I try, however, to look at the problem of modern philosophy from the standpoint of its history, it appears to me as a conflict between two opposing principles which were first clearly formulated by Spinoza and Leibniz in the seventeenth century. One is monism : It has taken many forms, materialistic and spiritualistic, and in religion and ethics it tends to mysticism. The other is monadism : it is perhaps the more difficult of the two principles because it runs contrary to our

ordinary modes of thought, but it seems to me that it is being brought into clearer light by the direction in which scientific research is turning to-day.

Discussion.

The Chairman thanked Professor Wildon Carr for his paper. The lecturer had given of his best, and we owed him our highest gratitude. He would like to ask a thousand questions, but must content himself by asking one or two. In the history of philosophy we perceive that generally philosophers are either idealists or realists, Platonists or Aristotelians. In the nineteenth century Comte represented the realist tradition by his Positivism. Did Professor Carr think that Comte had made any permanent contribution to Philosophy? Hegel, he supposed, was in the Platonic tradition, which has been pushed still farther to-day by Benedetto Croce. Croce's philosophy of history was of special interest. The nineteenth century was confident that there could be an accurate science of history. Croce had demolished the pretension and made history relative to the historian's ideas. When we place this idealist view of history side by side with Einstein's Theory of Relativity, one wonders whether modern idealism has not been dissolved into a too thin monism. The Catholic Church had appropriated Plato during the first four centuries. Then followed a long period culminating in the thirteenth century, when St. Thomas Aquinas incorporated Aristotle into the Catholic tradition. In this way the Church retained the full values of idealism and realism. To-day we have the new realism represented by Mr. Bertrand Russell. Did Professor Carr think that the new idealism of Benedetto Croce might be balanced by the new realism of Mr. Bertrand Russell, and thus preserve for moderns a philosophy at once delicate and robust?

The Rev. J. J. B. Coles thought that an excellent selection had been made in this Review of Philosophic Tendencies since Hegel. Bergson's Creative Evolution and his teaching as to Intuition were valuable contributions to modern philosophical discussions.

Croce's concept of History brought to mind the striking peculiarity of the Hebrew verb in dealing with past records so as to make them part of the "living oracles" of God.

Einstein's Relativity, in connection with individuality and personality, showed how necessary it was to hold Transcendence as well as Immanence in our synthesis of knowledge.

Lieut.-Colonel G. MACKINLAY said : Dr. Carr is to be congratulated on his careful and condensed account of the various systems of philosophy which have been in fashion since the time of Hegel ; but the thought strikes me at once : What is the use of Philosophy ? It appears to be veiled in a special verbiage of its own, so that it is not easy to make out the meaning of its sentences, and this is the more remarkable in that philosophy is supposed to be a help in various studies, including religion. As far as I can see it generally confuses the issue, reminding one of notes published some time ago, explaining a certain widely-read book, I think the *Pilgrim's Progress*. A simple student was asked if he had read these notes, and if they had helped him to understand the book. He replied that he enjoyed the book and found it very interesting and easy to understand, and after further study he hoped to understand the notes also !

It seems that the occupation of the philosopher must not be taken away from him, even if his explanations are apt to be difficult and obscure, as our lecturer allows may at times be the case (*see* p. 215 (middle)).

In applying philosophy to matters connected with the Bible, we find the glorious note of certainty of doctrines and of well-established facts in the Scriptures is to be exchanged for extreme vagueness and changeability.

The author of our paper would seem to give his subject away by speaking of the *speculation* of the modern period, and by referring to the dogmatism of the seventeenth century and the empiricism of the eighteenth, as examples of the variations of philosophic teaching at different periods (*see* p. 209).

Our author makes sympathetic mention of the effect of recent scientific and mathematical investigations on philosophy of late, specially commending the fundamental discovery of Einstein. There is hope, therefore, that in the future philosophy will be supported by appeals to established facts and that it will not be content with mere speculation.

The bulk of the paper, however, refers to a study practised by the heathen Greeks of old, from whom it is derived ; it is still full of

ambiguities. It seems foolish to depend on such teaching when we have the infallible Scriptures, which give us the inspired Word of God testifying that the Lord Jesus is the same yesterday, to-day, and for ever, and that He shed His blood to save those who trust in Him.

By all means let us investigate truth from various angles. I, for one, would be very glad if at some future time we could have a lecture in simple language which would enable us to understand the practical advantages, if any, which can be derived from a study of this intricate subject.

We live in a wonderful scientific and practical age. I should like to ask Dr. Carr if many of our leading inventors and scientific men, or of our successful politicans or captains of industry, owe their success to their knowledge of philosophy ?

Mr. W. E. LESLIE writes : Who has not, in attempting to unravel a tangled skein, found that each knot untied did but produce another elsewhere ? Philosophy has sometimes been regarded as just such a tangled skein. Such a view can be understood, if not justified, when one contemplates the changeful succession of schools and philosophers—Idealists and New Idealists, Realists and New Realists, the Monads of Leibnitz and the Monads of Wildon Carr, Einstein taking us back to the paradoxes of Zeno.

The movements referred to in the latter part of the paper (the work of James, Croce, Bergson and Einstein) render such pessimism unnecessary. In their more anti-intellectual aspects they present, no doubt, a swing of the pendulum, but regarded as introducing extra logical elements they show us something warmer, richer (more colourful), more personal, and therefore more real, than the arid intellectualism that preceded them. If an all-embracing synthesis be our aim, surely these movements give a distinct advance !

Of course, considered as anti-intellectualistic, these movements are exposed to the objection that they destroy the foundation upon which they rest. However they may congratulate themselves upon a fancied immunity from logical dialectic, there is no escape from the fact that their position is a product of reflection.

No doubt philosophers are making progress toward some orderly arrangement of their new wealth, but on less exalted levels confusion

is rife. Among people of mystic temperament the feeling that the intellect has a subordinate place has (particularly in America) opened the floodgates to a tide of superstition and quackery.

The Victoria Institute is interested in metaphysical questions from the standpoint of Christian Philosophy. Divine Revelation presents striking points of contact with these recent movements of thought as, indeed, it did with the earlier outlook of the Fathers and the Schoolmen. Life, activity, personality, freedom and beauty are now stressed. Revelation does not present us with formal series of metaphysical propositions, but has been transacted through living persons—Abraham, Isaac, Jacob; Moses and Isaiah; Ruth and Naomi. "Life" is prominent—"I am come that they might have life"—but it is associated with knowledge: "This is Life Eternal, that they should know Thee. . . ." Knowledge is associated with practical moral values: "If any man willeth to do His will he shall know . . ." Ethics and æsthetics are blended: "Worship the Lord in the beauty of Holiness." "O the depth of the riches both of the wisdom and the knowledge of God!" Yet He has hidden these things from the wise and prudent and revealed them unto babes!

Dr. SCHOFIELD writes: I have read with pleasure Dr. Carr's able review of recent philosophy, and venture to send one or two brief notes on the latter part of the paper.

The presentment (p. 218) of Dr. Bergson's creative evolution is certainly a long way removed, and in the right direction, from Darwin's theories, now so generally discredited.

The *vis a tergo* is a fact, and it only remains to give it its true name to make it a Christian doctrine.

The allusion (p. 219) to Croce and Gentile is interesting as to Monism, of which Gentile seems the soundest exponent. In my day Hæckel was still listened to, and the Monism then popular was entirely material. It was from this Conan Doyle was delivered—not, alas! into Christianity, but into spiritualistic Deism.

Since then Monism has again taken the field, but is now purely spiritual, matter itself having disappeared into mere "force and energy." This is nearer to Gentile than to Croce. This latter considers (p. 220) the æsthetic older than the intellectual—the image prior to the concept.

This is true if we give concept its full intellectual value ; but surely the simplest image in art cannot be formed without some elementary concept! Whence it would seem that the distinction is not so absolute as it appears.

Einstein's doctrine (p. 222) of the relative seems to me true in essence, and of great value, emphasizing as it does the impassable gulf between the *finite* and the *infinite*, the relative and the absolute, between man and God.

In his reply, Dr. CARR said, in answer to the Chairman's questions, that in his view the influence of Comte appeared rather in the direction it had given to philosophical development than in the enrichment of philosophy by new ideas. With regard to Croce's philosophy, it did undoubtedly continue the Hegelian tradition, but it represented a radical reform of the Hegelian dialectic.

He thanked Lieut.-Colonel Mackinlay for stating so plainly his view that philosophy is an idle pursuit. He could only say in defence that, for his own part, he had no choice in the matter ; he was a philosopher because he found it was in his nature to philosophize.

In conclusion, he thanked all who had sent communications or spoken. To attempt to follow the many valuable criticisms would carry him beyond the limits of discussion.

680TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W., ON MONDAY, JUNE 15TH, 1925, AT 4.30 P.M.

DR. JAMES W. THIRTLE, M.R.A.S., F.R.G.S., IN THE CHAIR.

The Minutes of the previous Meeting were read, confirmed and signed, and the HONORARY SECRETARY announced the election of the following as Associates:—Prof. Howard Atwood Kelly, M.D., and H. Krause, Esq., M.D., D.D.S.

The CHAIRMAN then called on Dr. A. T. Schofield to read his paper on "The Capture of the Unconscious."

ANNUAL ADDRESS.

THE CAPTURE OF THE UNCONSCIOUS.

By ALFRED T. SCHOFIELD, ESQ., M.D.

THE capture of the Unconscious is the capture of the man, and to a considerable extent the loss of the power of choice.

It is the hidden master-factor in character, and determines the life and destiny of every individual. It is the foundation of all stability of character and consistency of life. Where the capture is only partial, the course of life is unstable as water (Reuben: Gen. xlix, 4).

The capture also may be temporary or permanent. Its absolute permanency throughout life is rare; though it is generally very persistent.

To understand the subject, I must ask my audience who are

familiar with the science of the Unconscious, to bear with me while I briefly touch on its chief characteristics, for the benefit of those who are not so familiar.

In the first place, it is now generally accepted that the Unconscious is a very important part of the mind and spirit. Between it and the conscious there is a small district—sometimes illumined by the search-light of introspection, and sometimes not—that may rightly be termed the Subconscious ; the Unconscious itself being always unseen by the eye of Consciousness.

If the Conscious be compared to land above water, and Unconscious to land below, the Subconscious would correspond to space between high and low water.

Kant remarks: "Only a few spots in the great chart of mind are illumined by consciousness." *Wündt* asserts that "the Unconscious prepares for us the most important foundations of cognition without the possibility of error." *G. H. Lewes* says: "Unconscious intellectual processes form the greater part of our intellectual life."

The *absence of error* in unconscious habits or artificial reflexes is in strong contrast with the many mistakes we make in our conscious actions. The Unconscious is the master, the Conscious the servant. The Unconscious is the hidden guide of life, being the home and seat of the *ego* and the spirit of man. The Unconscious is the captain of the ship of life, the Conscious is the crew.

The Unconscious, or the *ego*, or the "spirit" of man, may be captured gradually by siege, or suddenly by assault. We will examine these two methods, the first of which is continually operating on every human being ; hence the importance of my subject.

The three most usual and effectual forces for capture by siege are :—1. *Heredity*. 2. *Environment*. 3. *Habit*. All these three carry on their work silently, ceaselessly, and surely, mostly performing their task without observation ; so that, as a rule, the person is wholly unaware of the radical changes they effect. They can operate effectively from the very earliest years, and the capture of the Unconscious be practically completed before adult life is reached. We will briefly consider them.

1. *Heredity*.—This may be weak or strong ; but is very persistent though not all powerful in the region of the mind. Physically, it tends to last through life. The fact that it *can*

be overcome naturally avoids fatalism; or the necessity of being captured by the "dead hand" of heredity, and remaining what one was born.

Before entering on the power that can, as a rule, overcome heredity, I must point out that in some few cases mental heredity seems supreme. I allude especially here to hereditary genius; where an overwhelming volume of force, generally, but not always, in one of the arts or sciences, seems from birth so firmly to have captured the Unconscious, that the personality becomes world-famous without effort, and without the *ego* having any knowledge of the source of the power, and very little ability to stop its outflow. Cleverness is an attribute—natural or acquired—of the Conscious mind: Genius is always a natural attribute of the Unconscious, and is very persistent. Having noted this exceptional feature, we may proceed with our subject.

Personally, I always think that Herbert Spencer's dictum that "*a man becomes more like the company he keeps than that from which he is descended*" is the charter of our freedom in this respect.

With regard to the vexed question of the transmission of acquired characteristics to one's offspring, which has been vehemently asserted and still more vehemently denied, it seems to me that both are true in measure. So long as the acquired characteristic is only in Consciousness, it is not natural, but artificial, and is not transmitted. But when it is practised instinctively, it has captured the Unconscious to that extent, and become natural or part of myself—the *ego*. Such characteristics only, I believe, are transmitted to the offspring. This is of the greatest importance.

Medical statistics conclusively show that a bad physical heredity can be overcome in four generations by developing opposite habits. Gout, and the love of drink, &c., can thus be completely stamped out. Environment also is stronger than heredity, and can completely master mental heredity in one generation.

Let me briefly illustrate these two points—the transmission of new, and the overcoming of hereditary qualities. Suppose I am born a boor, and acquire courteous habits. So long as I practise these intentionally they are not, I believe, passed on. If I become courteous naturally and instinctively, they can be inherited.

With regard to the other point, it is proved that a tendency

successfully resisted through four generations is no longer inherited. As to environment, Mrs. Meredith's Prison Gate Mission showed that by this force it could in time make infants with a long heredity of crime into good and honest citizens. Children, therefore, need not die what they were born, and there is hope for all.

It will be remembered that I am discussing now the capture of the Unconscious by siege only. By assault it can suddenly be taken by a superior force as by the Spirit of God, in a moment. The "New Birth" is simply another word for this operation, and will be discussed later.

2. *Environment.*—We now come to the second force by which siege can be laid to the unconscious mind of a child by a parent, without its knowledge and with the utmost success; and which we have seen can successfully overcome the most evil tendencies of the first force—heredity—in a truly remarkable way. It is well to observe here that all these three forces have no moral bias; but can operate with the same power for evil in some cases as they do for good in others.

To Matthew Arnold, environment is the first and greatest of the three forces that constitute education as distinct from instruction. "Education," he says, "is an atmosphere, a discipline, and a life." The environment is what surrounds me, seen and unseen—what I live in, and what my mind breathes unconsciously. This atmosphere tends to mould and form my spirit. An Eton boy becomes such, not by his books or masters, but because he is unconsciously captured by his environment.

In early years especially, most of the qualities of character can thus be made parts of the *ego* at the will of the parents; later on we can make our own environment, and thus bring a great force to bear upon any bad habits we may wish to overcome. In Timothy's case St. Paul refers first to the forces of heredity (2 Tim. i, 5), "I call to remembrance the faith that is in thee which dwelt first in thy grandmother Lois, and thy mother Eunice," and then to those of environment or education (2 Tim. iii, 15), "From a child thou hast known the Holy Scriptures, which are able to make thee wise unto salvation," as forces that had captured him gradually by siege; Paul himself being captured supernaturally by sudden assault near Damascus.

It is by their environment that our soldiers and sailors are made. Their essential characters (wholly unconsciously to themselves) are formed sometimes partly by heredity; but always by environment and by the third force—*habit*.

Of course, heredity and environment may pull the same way, which makes the capture of the Unconscious easy. Or the one may work for evil and the other for good, in opposition to each other, thus making for the victory of the stronger force—which in this case, if used effectively and soon enough, is always environment.

Environment includes all that can affect our body, mind or spirit, such as country, race, kindred, friends, towns, homes, schools, colleges, workshops, professions, circumstances, social life, religion, politics, recreations. Professor Sully, indeed, goes so far as to assert that character is the result of environment and heredity.

In illustration of the superior power of environment over heredity, I am told that in Père-la-Chaise Cemetery in Paris there is, on a tombstone, "He was born (heredity) a man; he died a grocer (environment and habit)." On the other hand, over hundreds of Mrs. Meredith's successes might be written: "They were born (heredity) thieves; they died honest men (environment and habit)."

Observe here that environment must not be limited to the material; for it is the mental and, above all, the spiritual atmosphere that changes us the most.

But we must carefully note that it is ONLY THAT PART THAT HE ASSIMILATES that changes the man. Environment outside a man effects nothing; it is only that which enters his spirit, and thus captures the Unconscious, that changes him. Last autumn I saw a red cactus dahlia on which was a large green caterpillar. At night, on returning, half of it was dyed a lovely rose pink, showing that only that part of its environment which it had eaten and assimilated had any power to change its colour. This accounts for the fact that one may go through Eton and never imbibe its spirit, or through the Services and remain a boor. In both cases the environment never enters the man. "Crowds thronged and pressed Christ at Capernaum; but only one touched Him (or assimilated her environment), and she was made perfectly whole!" We must also note that the occasional temporary nature of the "capture" is often due to change of environment. For though its work tends to persist it may be changed by a new environment of greater force. It is thus

that the capture of the Unconscious for good in early life may be eclipsed by the force of a later bad environment, or *vice versa*.

Finally, the power of environment over heredity is only personal: racially, in history, heredity is always triumphant.

3. *Habit.*—This is the third siege-force for the capture of the Unconscious. It is very gradual and very sure. At first every action is done consciously. After repeating it a certain number of times it begins to be performed subconsciously, with greater ease and accuracy, and eventually unconsciously being short-circuited in the mid-train. This is a secret of success in business life, and in mechanical labour. An illustration may help us here. You are at tea with a friend, and the door is ajar, it being very hot. You hear a loud ring and the front door being opened. "Who on earth is that?" you ask. Your friend replies, "I believe it's Uncle, but listen and we shall soon know." We listen and hear distinctly one, two, three, four, five, six vigorous scrapes on the mat, and Uncle Tom comes up. My friend nodded. When he had gone, dying with curiosity, I ask, "But how on earth did you know"? "Well," she said, "Uncle Tom was a very careless, dirty little boy, but he had a mother who knew the value of habit. So every time he came into the house with his muddy boots his mother said, 'Now, Tom,' *six times*," and he was made to wipe his boots every time for the exact number. In a year the act was performed unconsciously. It was a habit, and now he must do it always. "Train up a child in the way," &c., because *he* cannot.

No act forms a part of character or of the *ego* until it is unconsciously performed. No boy is cleanly so long as he has to think about washing; or truthful so long as he has to think whether he shall be so, as in Mark Twain's advice "When in doubt, tell the truth." It is only when both are instinctive, that they form part of himself. It is thus by habit that new qualities of character can be formed; and in childhood, by wise parents, with comparative ease. All men thus tend to become "recurring decimals."

These, then, are the three chief forces which, concurrently, or by the second and third in opposition to the first, capture the Unconscious gradually by siege.

It remains to consider briefly two other powers which can capture the Unconscious suddenly by assault. These are

(A) ideas or ideals, and (B) superhuman agencies. These two forces may operate gradually as do the three we have studied; or, on the other hand, can (and do) capture the Unconscious in a moment, which the others cannot do.

The result in this case is startling; for a new man appears. It is not a gradual change of character, but a sudden replacement of the old with something quite new.

(A)—The principal differences between ideas and ideals is that ideas generally attack the Unconscious directly; so that the *ego* does not always know what has captured it; whereas ideals reach the Unconscious through the Conscious, and the *ego* is well aware of the master-force. I consider ideals more powerful in forming character than ideas; and it is needless to say that the loftier the ideal the nobler the character.

The history of the great body of Boy Scouts is a good illustration of the sudden power of ideas; and as this is coupled with a great ideal in Gen. Sir Baden-Powell, the capture of the Unconscious is easy and well-nigh complete.

The story of Gideon is a wonderful psychological study in this connection. God's first test to the army was to their own conscious minds and 22,000 went home, while 10,000 were true soldiers so far as they knew. Now came the crucial test as to whether the Unconscious was really captured by the idea of fighting for God, and by the ideal captain that led them; and out of the 10,000 but 300 showed they were soldiers in the depth of the unconscious mind, and had been captured by the ideal before them of Gideon; who we may well know did not go down on his knees to drink before the enemy as did all but a few. It is always our Unconscious mind that gives us away; consciously we can generally make a good show. As long as a boor acts consciously he is polite and mannerly; it is only when he forgets himself that he unconsciously betrays that he is a boor at heart. It was the test of the Unconscious that here discovered the true soldier.

It is wonderful to note how widespread and powerful these ideals are. They pervade, and largely mould, the conduct of men throughout life. There is not a schoolboy but strives to live up to the standard of his school; and no two are alike in detail. There is no man but seeks to live up to the ideal of his class. The army has one, the navy another; merchants another, stockbrokers another; doctors, lawyers, the clergy, the nobility, and even the lowest classes, all seek to live up to some definite

standard of their own. The workman and the capitalist each has his. The Christian's alone claims to be Divine, perfect, and universal.

(B)—I now come, with some diffidence, to the greatest of all powers to capture, and often in a moment and with overwhelming force, the unconscious Mind: for we must not forget that supernatural forces are incomparably more powerful than natural forces such as heredity and environment. Superhuman forces may capture the Unconscious by siege or assault, *i.e.*, gradually or suddenly; and the phenomena attending the latter are very remarkable. These may act when the Unconscious has been already captured by some inferior force. For the Unconscious may be captured more than once and the character thus changed. But the Divine is ever the more powerful. These forces may also be good or evil. Where the capture is gradual, the first stage is through consciousness, and obsession precedes possession; where sudden, it is direct and unconscious.

Very little is known of the power of evil supernatural forces; but the records of our asylums, of Spiritism, and of Holy Writ make it impossible to disregard them. This last, indeed, uses language of appalling intensity. "Our wrestling is . . . against the principalities, against the powers, against the world-rulers of this darkness, against the spiritual hosts of wickedness" (Eph. vi, 12, R.V.)—words significant of superhuman power for evil.

In this connection I may allude to the well-known phenomena of possession by evil spirits; of which many asylums have past or present specimens. Although I have no direct connection with the insane, not being an alienist, I have had three cases of well-marked evil "possession": all of them unconscious of the evil. In one, especially, the possession was so horribly and unnaturally evil that the two trained male asylum nurses (a class inured by their calling to all human evil) both gave me notice; and no money would induce them to spend another night with the patient.

Two other cases were refined and pure-minded ladies of position, whose unconscious outbursts were of such rank obscenity and blasphemy that their friends did their best to have them certified; but in both cases they failed, as the patients were not insane, nor violent in any way. It is quite remarkable, and worthy of special note, how precisely such cases of possession

parallel in evil what we are told of the action of the Holy Spirit on the other side. In both cases there is possession, and in both it is unconscious; and what is more remarkable, the possessed are both said to be "twice-born." Those born of the Spirit, when He in-dwells them—and in Bible language the human body becomes His temple—are said to be born from above, or again; and in Central India the devil-possessed heathen priests, whose obscene rites cannot be described, are also known as the "twice-born."

I have already pointed out in this Institute that Spiritism itself is in many ways but a reflection on another and lower plane of the Spiritualism of the Bible; and is capable to some extent of capturing the Unconscious both by siege and assault.

But undoubtedly when we turn to the powers for good the supreme supernatural agency is the Spirit of God, which "blowing where it lists," and at times indicating its presence by sound, is untraceable in its course and power; and its force is often unrecognised till the capture of the man is complete, and in this case permanent. In the language that marks the capture of the Unconscious such an one is "born again." This is often called "conversion," and is so remarkable in its effects, that so far as I know it transcends the capture of the Unconscious by any other agency whatever. Sometimes the Unconscious is thus captured in earliest childhood and the results are very beautiful; at others the whole man, entirely obsessed in the pursuit of some inferior or evil object, is apparently captured for life. When on a sudden he is arrested by the lightning force of the Divine, and becomes in an instant and permanently an entirely new being. Readers of Begbie's *Broken Earthenware* will know what I mean. The man is emphatically a new creature, with a new life, new ideals, outlook, hopes, and springs of action. And yet, powerful and permanent as the in-dwelling of the Holy Spirit may be, His Presence cannot be discovered by introspection, however deep. Indeed, it was in reflecting on the fact of a positive Presence within any being that was absolutely undiscoverable, that I was led to see that, beyond all subconsciousness, lay a vast tract of deeper mental powers, and this caused me to write, over twenty-five years ago, my monograph on *The Unconscious Mind*.

Although the in-dwelling of the Holy Spirit is untraceable in my spirit by any introspection, it is revealed from time to time by His action. To some extent, as one's senses are exercised

"to discern good and evil," I can recognize thoughts that are not my own, and I use the phrase "A thought struck me"; when my own, I generally say, "I thought so and so." It is well to have our senses thus able to discriminate between good and evil; and to distinguish (A) between our own and other voices, and (B) whether the thought be bad (to be rejected) or good (to be followed). The two voices are well described in Prov. ix.

Having thus spoken briefly of Heredity, Environment, Habit, Ideals, and Supernatural Forces, the five powers that capture the Unconscious, it only remains for me, in closing, to point out some of the effects of this capture on character.

Character is not a reasoned product of consciousness, but springs from Unconscious sources; and is more truly the result of the capture than is conduct, which can be modified consciously in a way that character cannot. Conduct is therefore the more artificial, while character is natural. Conduct can reveal or conceal the capture of the Unconscious, or what the man *is* according as one approves or disapproves.

One unconscious mind (and especially when consciousness is dormant, as in the trance of a medium, hypnotism, &c.) may read another unconscious mind, and thus not only reveal what one thought was only known to oneself, but also discover its capture, and thus become a discerner of spirits. The capture of the Unconscious is the capture of the spirit, and through it of mind and body, and thus of the entire man. "My son, give me thine heart"; "Out of the heart," &c.; "Be filled with the Spirit"; all illustrate this. "To me to live is Christ" is still more expressive of complete capture.

When the Unconscious is captured by virtue the man feels free, if by vice he feels a slave, because Christianity has thus taught us. When, however, I am captured, I am really no longer free to choose in either case. *I have chosen*, and my will is governed by my choice, often unknown to myself. Thrice blessed is such a condition when rightly governed.

If there be no capture my will is free, but my character is unstable and uncertain, both for good and evil. If self has captured me I am a poor egoist. We are often unconscious that we have been captured; and only realize it when we find it no longer possible to do the things that we would.

I close with once more pointing out very emphatically that

my subject—"The Capture of the Unconscious"—surpasses for each one all other subjects; because what possesses me is the real "Captain of my soul," who directs and controls it—always, for time and possibly for eternity.

Discussion.

The Chairman (Dr. Thirtle) moved a vote of thanks to the lecturer. He said:—Dr. Schofield has once more covered ground made familiar by the studies of long years; and once again we observe that his concern with psychological theory is eminently practical. With him the Unconscious is no mere airy ghost, but rather a moral and spiritual entity, with life and soul, if not furnished with flesh and bones. We must all have been struck with that early passage in which the Unconscious and the Conscious were contrasted. How true is the observation that, in the last analysis, "the Unconscious is the master, the Conscious the servant . . . the Unconscious is the captain of the ship of life, the Conscious is the crew." May we not proceed to develop other distinctions germane to the subject before us—"The Unconscious is the reality, the Conscious is the camouflage; the Unconscious discloses the person, the Conscious sets forth the material representation."

In studying the issues raised, we are brought face to face with the spiritual conflict of which so much is said in the New Testament revelation. In the world of moral action and spiritual interest we are ever in presence of developments that may be variously described, and, as conducted by Dr. Schofield, these discussions are in no case brought under unprofitable compromise by the application of untried theories. Accordingly, we find sure guidance afforded by the facts of life, as recalled by the great work of Mrs. Meredith, and further, by the operation of Gospel truth. Here, as we have found, we properly encounter such terms as the New Birth and Conversion, with the thought of surrender to the will of God, work in which we must recognize the operation of the Holy Spirit, by which the dead are made to live, and things natural are superseded by things spiritual.

Mr. WILLIAM C. EDWARDS said : We are all very glad to have again a paper from Dr. Schofield. His lectures are always interesting and sometimes excitingly so. In the paper before us this afternoon there are some phrases which are specially happy. One such is found on p. 237, where our lecturer says that when a man is captured by virtue he feels free, but when captured by vice he feels and knows that he is a slave. No truer words have ever been written on that subject. They are the echoes of our Lord's own words, " Whosoever committed sin is the servant (slave) of sin " (John viii, 34). and " If the Son shall make you free ye shall be free indeed " (verse 36). I hope to use this publicly again if I may do so.

There are, however, other phrases to which I cannot subscribe : *e.g.*, on p. 229 in two places it is suggested that the " Unconscious Mind " is the *ego*. Now what is the *ego* ? Who knows ? Surely it is quite impossible for any one to lay down such as a dogma. If we have thought about the matter at all we have, of course, been overwhelmed with the mystery not only of all things around us, but our own existence and mentality. All is a profound mystery, and I for one am willing to accept as life's only possible solution Gen. ii, 7 : " God breathed into his (*i.e.*, Adam's) nostrils the breath of *lives*, and man became a living soul."

The *ego* in each one of us is therefore, in my humble judgment, one of those lives breathed into our first parents, plus, of course, memory and character and all the accretions which come with years.

Most of these discussions about the " Unconscious Mind " are to my way of thinking rather bewildering. I suggest that what some psychologists label as the " Unconscious Mind " is really only a sphere where the motions of the mind are so rapid that we cannot follow them.

" How fleet is a glance of the mind !
Compared with the speed of its flight,
The tempest itself lags behind
And the swift wingèd arrows of light."

Let me try and illustrate what I mean. I have a country cousin who comes up to London. I take him round to see " the sights." He has seen very little except small county towns and country villages. I take him into a moderately large church and he is amazed.

And why ?—Because he has never seen such a place before, and says that it is the largest which he has ever seen. On the other hand I, who am used to large buildings in London and other places, can see nothing extraordinary about the places—indeed, I may even reply that we have many much larger.

Now I suggest what happens to him mentally is this: When the man for the first time sees such a building there immediately passes through his mind in a fraction of a second of time, as in a mental panorama, all the buildings which he has ever seen, and from the review of them he decides whether the place he now sees for the first time is large or small, fine, beautiful, or the reverse, and that is the same with every motion of the mind—they are so exceedingly rapid that we cannot realize the processes except on very rare occasions, like waking up from a dream or in such cases as are told of by those who have passed through the last stages of drowning.

Now there are several pyschological points which it would be interesting to discuss further; for example, many times in my life I have been called upon to make important business decisions, and it has been quite a common custom for me to say, "Before coming to a final decision I will sleep over the matter," and it is extraordinary how wonderfully a night of rest brings clarity of mind and helps to decide matters of the utmost importance to a business man. What is the cause ? Does the mind work or travel in sleep ? If so, sleep is different to what many regard it. On this point please read Job xxxiii, 14–18.

I should like to have said something about heredity and demoniacal possession and given some instances which I have known; but my time is gone, and I can only close by referring to p. 236, in which the lecturer alludes to Conversion or being born again. I will not criticize, but merely say this: Those who have had the happiness to know the joy and rapture of sudden conversion to God are not, I think, likely to be attracted to the theory or analysis given in this paper.

I wish that all present, and indeed all the members of our Society or Institute, who have known this felicity, would send in some details of their experiences. A consensus of such would furnish us with a wonderful subject for consideration at some future meeting.

Mr. PERCY O. RUOFF said: Professor J. Shaw Bolton, when delivering the Maudsley Lecture on "Mind and Brain," is recently reported by *The Times* newspaper to have said: "The myth of the Unconscious Mind deserves a little more consideration. Does anyone know what it is? . . . The Unconscious Mind must exist fully formed before sensori-psycho-motor experience has been acquired, and even before the necessary cerebral structure for such functions has been evolved, because analyses extending back into the days when the patient was in his mother's womb are a heroic undertaking. No one can analyse what is not." This quotation seems to me to represent the position as far as it goes, and Dr. Schofield's lecture does not throw much light upon the mysterious Unconscious, which, in my opinion, is as difficult to analyse in its unending complexities, and as easy to measure in its compass as it would be easy to analyse the heavens or measure them with a yard measure.

An American wag quoted in the preface of a book on 'Psychology,' written by a Professor of Columbia, puts forward a delicious *jeu d'esprit* which has some little justification. The wag says: "First Psychology lost its soul; then it lost its mind; next, it lost Consciousness: it still has behaviour—of a sort."

With great respect, I would call attention to a number of obvious contradictions in Dr. Schofield's paper. In the opening paragraph it is said, "The capture of the Unconscious is the capture of the man, and to a considerable extent the loss of the power of choice." In the third paragraph from the end of the lecture, the words occur, "When, however, I am captured, I am really no longer free to choose in either case." Both these statements cannot be true. If the capture of the Unconscious deprives a person of choice, the capture cannot at the same time deprive of the power of choice to a *considerable extent.*

Again, the lecturer says, p. 229, para. 1, that "it is now generally accepted that the Unconscious is a very important part of the mind and spirit," and, on the same page, para. 5, he speaks of "the Unconscious, or the *ego*, or the spirit of man." If the Unconscious is a part of the spirit it cannot at the same time be the spirit itself.

Then Dr. Schofield, in p. 229, para. 6, refers to "the three most

usual and effectual forces for capture by siege "—1. Heredity; 2. Environment; 3. Habit. How can such a capture take place? Over heredity a man has no control; over environment only a partial control; and, as for habit, a weak and ineffectual struggle must ensue if the Unconscious is "the hidden master factor in character," as Dr. Schofield affirms. Any of these forces working for the capture of the Unconscious would produce schism in the man, and the "Unconscious" divided against itself could not stand.

On p. 230, para. 1, the lecturer speaks of genius as being "a natural attribute of the Unconscious," and of hereditary genius capturing the Unconscious, and proceeds to quote with approval Herbert Spencer's dictum that "a man becomes more like the company he keeps than that from which he is descended." Which is correct of these two propositions? Is hereditary genius the stronger, or environment?

Dr. Schofield makes a claim of extraordinary interest on p. 231, para. 4, and says that "In Timothy's case St. Paul refers first to the forces of heredity (2 Tim. i, 5) and then to those of environment, or education (2 Tim. iii, 15), as forces that had captured him by siege." This is a matter of vital interest to Christian parents: Is there such a thing as faith being transmitted by heredity, or is it the case that Paul is recording a remarkable fact in a particular family. Faith is apparently elsewhere referred to in Holy Scripture as being exercised through grace and not being conveyed by heredity.

I cannot conclude without associating myself with Dr. Schofield's references to the agency of the Spirit of God in dominating the whole man, with the resultant beneficial spiritual effects.

Mr. Avary H. Forbes said: Dr. Schofield locks up human nature in such watertight compartments that it is difficult to come at it at all. The mind, he tells us, is made up of the Conscious, the Subconscious and the Unconscious. The two latter conditions differ apparently in this, that the Subconscious part of the mind is that which can be reproduced by an effort of memory; and the Unconscious that which cannot. But is there not evidence to show that nothing that has once entered the mind is wholly lost to

conscious memory, but that it may, under certain circumstances, be recalled ? Sir Wm. Hamilton—in his Lectures on Consciousness—tells of a servant girl who, in a high fever, became delirious ; and in her delirium repeated long passages of Hebrew, of which she understood not a word, and of which, after her recovery, she could not repeat a syllable. This formed an insoluble mystery, until it came to light that, years before, this girl had been employed in the household of a clergyman who used to pace about the house reciting chapters from the Hebrew Bible. And does not this throw light, too, on the well-known fact that persons, on the point of drowning, have been able to perceive the whole of their past lives in a moment of time ?

Cleverness and genius are, by Dr. Schofield, locked up in mutually exclusive compartments. " Cleverness is an attribute of the Conscious Mind : Genius is always a natural attribute of the Unconscious Mind " (p. 230). But where is the line to be drawn between cleverness and genius ? And who is to draw it ? We all know when it is day, and we all know when it is night ; but can anyone fix a *moment* when day ends and night begins ? So we can distinguish between lofty genius and mere cleverness ; but does not cleverness exist in every degree, from the commonplace to the astonishing ? And at what shade are we to draw the line ? Is not genius a high degree of accumulated " cleverness " or (as I prefer to call it) talent ? And are there not—in consequence of this insensible gradation—hundreds of persons, who by multitudes are labelled " men of talent," and, by an equal number, " men of genius " ? Yet, according to the doctor, the two things are essentially different, for he tells us that the attributes of genius " are transmitted to the offspring," while the attributes of cleverness are not (p. 230).

A man who has inherited genius, he further declares, is so much in its power, that he is not a Conscious agent, but almost a passive instrument : " Hereditary genius seems from birth so firmly to have captured the Unconscious that the personality becomes world-famous without effort " (p. 230). One wishes that Dr. Schofield had named some of these geniuses who became world-famous without effort ; and one is further led to ask from whom Homer, Virgil, Cæsar, Charlemagne, Dante, Luther, Shakespere, Milton, Newton,

Beethoven, Handel, Napoleon, Wellington, Bismarck, inherited their genius, or to whom they transmitted it.

Dr. Schofield further says that "no act forms a part of character or of the *ego*, until it is unconsciously performed. No boy is cleanly so long as he has to think about washing, or truthful as long as he has to think whether he shall be so" (p. 233). I have been washing with soap and water and taking morning baths for sixty years. As yet, however, I have never done so without thinking about it. I cannot, therefore, claim to be cleanly yet. Will the Doctor tell me when I may hope to be able to make the claim?

To be truthful, too, we must tell the truth "instinctively"—"unconsciously," and as a matter of "habit" merely. Is not this to make morality automatic, and independent of choice, and, therefore, of responsibility?

Mr. THEODORE ROBERTS felt Dr. Schofield's paper would stimulate lines of thought upon a subject which he considered was only beginning to be studied. He agreed with Mr. Ruoff that the "unfeigned faith" in the three generations of Timothy and his mother and grandmother was not due to heredity at all, but rather to environment and education. He pointed out that Dr. Schofield's statement that a bad physical heredity can be overcome in four generations accorded with the scriptural limitation of God's "visiting the iniquities of the fathers upon the children and upon the children's children" to the third and fourth generations (Exod. xxxiv, 7). He quite agreed that St Paul's conversion was a case of environment, as it was the vision he had of Christ that made Him the captain of his soul, which he thought was illustrated by David in the cave of Adullam, when the most disreputable members of the Israelitish nation "gathered themselves unto him and he became captain over them," not "a captain" as A.V. (1 Sam. xxii, 2). This captaincy turned them into perhaps the greatest heroes war has ever seen, as the account of their exploits, particularly in 2 Sam. xxiii, shows.

He quoted St. Paul's prayer in Phil. i, 9, 10, that "your love may abound yet more and more in knowledge and all discernment so that ye may distinguish the things that differ," and pointed out that our word "æsthetics" was derived from the Greek word

translated "discernment" in that passage. He held that the formation of habits, by relieving us from having to make decisions in elementary matters, set us free to exercise the function of choice in higher things, so that in the words of Tennyson we "rise on stepping-stones of our dead selves to higher things."

He would like to illustrate Dr. Schofield's references to the superhuman action of the indwelling Holy Spirit upon our moral characters by referring to the Acts of the Apostles. In the earlier part of that Book, the Spirit was very prominent in leading the apostles in their testimony and service, but from the moment that the Apostle Paul determined to make his last visit to Jerusalem, the Spirit was not mentioned save as speaking in others to warn him against going. He was so immeasurably above us that we could not criticize, but he would rather suggest that in all the interesting incidents of Paul's career in the subsequent chapters of the Book, the Spirit of God as it were stood aside from direct action, in order that we might see what He had already accomplished in Paul, by showing a very human person morally superior to every one with whom he was brought into contact.

The Rev. CHARLES GARDNER, M.A.: The Unconscious Mind has been a subject of paramount interest for the last seventy years, and there have been various speculations concerning its nature. Some thinkers have declared that the Unconscious Mind knows everything, that it is perfectly holy and beautiful and true. Some, going to the other extreme, declare that it is the dust-bin of the Conscious Mind. To-day there are many who practise thought-holding exercises in order to dig treasures out of the Unconscious. For my part I deprecate these and other introspective methods. The Unconscious, to work healthily, must remain Unconscious. It can be reached and kept in healthy action by faith, which is a spiritual gift of God. Also, I think that the Unconscious Mind is a medley of good and evil; and too often the evil surprises us by its sudden emergence from the Unconscious field. Will Dr. Schofield tell us how we may be saved from the evil that lurks in our Unconsciousness?

Rev. J. J. B. COLES writes: The many valuable points in Dr. Schofield's paper will be more fully appreciated when further

progress has been made in the study of Christian Psychology. At present as the discussion showed, there is no general agreement on the subject of the Unconscious Mind.

Some of us are of opinion that "the mind is the slayer of the real" "and that the true way to knowledge is to transcend the mind." This can be done when the *deeper* truths of Christianity are brought to bear on these important questions.

AUTHOR'S reply: Dr. Schofield thanked the audience for the way they had received a somewhat difficult subject, though one of extreme importance, and replied very briefly to the few criticisms that had been made. His most severe critic was Mr. Percy O. Ruoff. He finds a number of obvious contradictions in the paper. His first two illustrations prove with the trained accuracy of the legal mind that a part cannot be a whole, which I confess is perfectly true; and I much regret that the subject is in itself of such an abstruse and little-known nature that I have sometimes hesitated to make the assertion as full and strong as elsewhere. His third contradiction is not a contradiction at all, but the failure of Mr. Ruoff to see that the "capture" is not made by man but by forces which are often wholly or partially beyond his control; here, then, is no contradiction. His fourth "contradiction" depends on a quotation without the context. He quotes from p. 230: "Genius is always a natural attribute of the Unconscious," and, as a contradiction, "Hereditary genius captures the Unconscious," but *omits* "from birth," which takes away the contradiction. The Rev. Charles Gardner speaks of "introspective" methods in connection with the Unconscious Mind. He will see (p. 229) that all such introspection is impossible. It only avails in the Subconscious.

One may here remark that we have not (p. 229) two minds, still less three. We have but one. That part which is visible to the mental eye we call the Conscious, the partially-visible the Subconscious, and the invisible the Unconscious.

Our mind of course contains in all three parts good and evil. How to eliminate the latter is pointed out in "Whatsoever things are pure, of good report, etc., think on these things."

Mr. Avary H. Forbes complains of my locking up the Conscious,

Subconscious and Unconscious in water-tight compartments. Perhaps the above will show that I do not (p. 229) but regard all three as parts, not very clearly defined, of the one mind of man.

To be truthful, we are told, I regard as a "matter of habit merely." Such is not the case. What I pointed out is, that so long as one deliberates whether one will tell the truth or no, whether one will wash or no, one is not truthful or cleanly; one is so only as both become instinctive and "due to Unconscious impulses."