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CREATION CENTRED

IN

CHRIST

BY

H. GRATTAN GUINNESS, D.D
FELLOW OF THE ROYAL ASTRONOMICAL SOCIETY

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CONTENTS

PAGE

INTRODUCTION. . . . . xiii–xxxix

PART I.

NATURE.

CHAPTER I.

NATURE'S WITNESS TO GOD 3

Five views of the origin of the universe—

1. The Polytheistic 4
2. The Pantheistic 4
3. The Atheistic 5
4. The Agnostic 6
5. The Theistic 7

PART II.

REVELATION.

CHAPTER I.

THE NEED OF REVELATION 15

I. Moral Evil 15

1. Man Approves the Better 15
2. Man, though he Approves the Better, Follows the Worse 18

II. Physical Evil, or Disorders in External Nature . . . 20

III. The Inability of Man to Remove Moral and Physical Evil, and to Restore the World 21

1. The Failure of Natural Religion 21
2. The Failure of Philosophy 22

CHAPTER II.

THE EXISTENCE AND EVIDENCE OF REVELATION 24

I. External Evidences 29

1. The Civil History of the Jews 29
2. The Religious History of the Jews 30
3. The Relation of Judaism to Christianity 31
4. The Miracles of Christ and His Apostles 33
5. The Prophecies in the New Testament 33

Digitized by Google

PAGE

II. Internal Evidences 34
1. The Superiority of the Religion of the Bible to all other Religions of the World 34
2. The Superiority of the Christian Religion to Judaism . 35
3. The Superiority of the Christian Religion to Philosophy 36
4. The Character of Christ 37
5. The Conversion and Character of Paul the Apostle . 41
6. The Evidence of Experience 43
(1) The fact of Spiritual Illumination . . . 43
(2) The fact of Moral Renovation 44
(3) The Outward Historical Proof 44
(4) Combination of Evidences 45

PART III.

THE CONNECTION OF THE NATURAL AND REVEALED; OR, CREATION CENTRED IN CHRIST.

TESTIMONY OF SCRIPTURE 49

CHAPTER I.

CENTRALIZATION IN THE NATURAL AND IN THE REVEALED . 56
Sec. I. *Centralization in Nature* 56
I. The Heliocentric Principle 56
1. The Sun as the Centre of Motion 62
2. The Sun as the Centre of Light and Heat . . . 63
3. The Heliocentric Principle in the Stellar System . . 64
II. The Law of Gravity 67
III. Centralization in the Mineral World 70
IV. Centralization in the Organic World 70
1. Centralization in the Vegetable World 71
2. Centralization in the Animal World 72
3. Law of Dual Centralization 73
V. Centralization in the Moral World 75
VI. The Central Principle 77
VII. The Hierarchical Character of the System of Nature . . 77
1. Inorganic Nature Subserves the Organized World . 78
2. In the Vegetable Kingdom Inferior Forms of Life Subserve Superior Forms 78
3. The Vegetable Kingdom Subserves the Animal . . 79
4. Lower Animal Races Subserve the Interests of Higher . 80
5. The Material World Subserves the Mental . . . 80
6. The Physical Subserves the Moral 81
7. In the Realm of Mind all is Subordinated to Moral Law 81
VIII. Continuity of the Natural System with the Revealed . . 82

Digitized by Google

PAGE

Sec. II. *Centralization in Revelation* 84
I. The Bible is the Book of Redemption 84
II. The Bible is Characterized by the Unity of its Theme . . 84
III. The Bible History of Redemption presents a Harmonious, Comprehensive Series of Providential Acts . . . 84
IV. The Person of the Redeemer is the Centre of Revelation . 85
V. The Mediatorial Principle is the Centre of Theology . . 85
VI. The Central Facts in Redemption are the Death and Resurrection of Christ 88
VII. The New Testament has a Threefold Doctrinal and Historic Division or Progress 89
VIII. The Three Steps in the Progress of New Testament Doctrine and History correspond with Stages in the Gathering together of all things in Christ 92
IX. The Central Principle in the Entire Work of Redemption is the Principle of Love 95

CHAPTER II.

CENTRALIZATION IN THE RELATION OF THE NATURAL TO THE REVEALED 98
I. Law of Analogy 98
Sec. I. *Analogy in Nature* 100
1. Analogy in Form 101
(1) In Mineral Substances 101
(2) In Organized Objects 102
(*a*) Analogy in the Structure of Plants . . 103
(*b*) Analogy in the Structure of Animals . 104
2. Analogy in Number 106
(1) In the Law of Gravitation 106
(2) In the Chemical Composition of all Natural Substances 107
(3) Laws of Gravimetric Ratio 109
(4) Number in Relation to the Forms of Crystals . 110
(5) Number in the Vegetable World 110
(6) Number in the Animal World 111
3. Analogy in Time 112
(1) The Periodic Times of the Planets . . . 112
(2) Vital Periodicity 112
4. Analogy of Lower Kingdoms to Higher . . . 114
(1) Mineral and Vegetable Worlds . . . 114
(2) Vegetable and Animal Kingdoms . . . 116
(3) Man and the Lower Animals 116
5. Summary Statement of the Law of Analogy . . . 117

Digitized by Google

PAGE

Sec. II. *Analogy in Revelation* 118
1. The Language of the Bible is to a considerable extent Analogical 118
2. The Bible sets forth Divine Truth by means of Visions, Symbols, Types, and Parables 119
3. The widespread Use of Typology in the Bible is plainly and repeatedly Stated in the Volume itself . . 119
4. There is a Harmony and Far-reaching Progress in the Use of Analogy in Scripture 121
Convergence of Analogies 123
1. Types Relating to the Person of Christ 123
2. Types Relating to the Offices of Christ 124
3. Types concerning the Work of Christ 124
Convergence of Types and Prophecies in Christ 125
Christ the Prototype of the New Life of the Regenerate . . 126
1. Christ is the Prototype of the New Nature and Holy Life of the Regenerate 126
2. The History of Christ is the Prototype of the History of the Regenerate 128

Sec. III. *Analogy of the Natural to the Revealed* 131
1. Analogy of the Physical Order in Nature to the Mental and Moral 131
2. Recognition and Use of this Analogy in Poetical Language 132
3. Analogy of the Sensible to the Mental and Spiritual, as Exhibited in the Language of Revelation . . . 132
4. Analogy of the Natural to the Revealed in the Absence on the Surface of Systematic Arrangement . . 134
5. Analogy in the Association of Clearness and Obscurity . 135
6. Analogy in the Presence of an Ordered Constitution . 136
7. Analogy in the Existence of a Hierarchical Order. . 136
8. Analogy in the Prevalence of the Principle of Union . 137
9. Analogy in the fact of a Mono-centric Order . . 138
10. Analogy in the Reign of the Prospective Principle . 140
11. Analogy in the Existence of a Progressive Plan . . 141
12. Analogy in the Existence of a Series of Dispensations . 141
13. Analogy in the Presence of Prophetic Types . . 142
14. Analogy in the Prevalence of the Parental Relation . 144
15. Analogy in the Reign of the Retributive Principle . 144
16. Analogy in the Operation of the Remedial Principle . 146
17. Analogy in the Presence of the Vicarious Principle . 149
18. Analogy in the Indwelling or Temple Principle . . 150
19. Analogy in the Place of the Intuitional Principle . . 151
20. Analogy in the Operation of the Inner Law Principle . 153

Digitized by Google

PAGE

21. Analogy as to the Principle of Progressive Liberation . 156
22. Analogy as to an Ascending Order of Increasing Complexity 157
23. Analogy as to the Principle of Conflict 158
24. Analogy in the Reign of the Palingenetic Principle . 161

Conclusion 162
1. The Analogy of Phenomena in Nature and Revelation, Exhibited in the Foregoing Section, involves Identity of Law 162
2. The Laws or Principles here grouped together as common to Nature and Revelation are Leading Laws in both systems 163
3. The Analogy thus Traced between the Natural and the Revealed involves the Archetypal Character of the latter 163
4. The Analogy Traced Exhibits the Convergence of Types, both Natural and Revealed, to one Central Archetype 163

Summary 165

II. Law of Adjustment 166

I. Adjustment in Nature 167
1. Adjustment of Inorganic Masses 167
2. Adjustment of Chemical Elements 169
3. Adjustment of the Inorganic to the Organized . . 170
4. Adjustment of Parts and Functions in Organized Bodies 170
5. Mutual Adjustment of Classes in Organized Nature . 173
6. Adjustment of Lower Kingdoms to Higher, the Mineral to the Vegetable, and the Vegetable to the Animal . 173
7. Adjustment of Periodic Times 174
8. Adjustment of the Physical to the Mental and Moral World 175

II. Adjustment in the Mutual Relation of the Natural and Revealed 177

I. *The Geological Adjustment* 178
1. Outline of the Facts of Geology 180
2. Geology Teaches that the Antiquity of the Earth is Great Beyond Conception 184
3. Geology, while it takes us back very far, Teaches us Nothing of the Origin of the Earth 186
4. Geology bears clear Testimony to a Begin[illegible] [illegible]ife, a Commencement of Organized Existences . . 189
5. Geology shows that there have been several Distinct Successive Economies of Life, Terminating in Man . 191

Digitized by Google

PAGE

6. Geology Teaches us that Man is the Archetype of the Animal Creation 193
7. Geology Shows us that During all the Long Succession of Ages Prior to Man's Appearance on the Earth, God was Making Preparation for his Physical Wants 194
8. An Anticipation of Death—the Wages of Sin Runs through the Geologic Ages. 199
9. In the Order of Succession of its Animal Kingdoms Geology Presents us with a Remarkable Foreshadowing of Human History 202
10. The Unsuitability of Man as a Corrupt and Mortal Being to be the Goal of the Divinely Directed Movement of Geologic or Terrestrial Advance . . . 209
11. The Appearance in History of a New and Nobler Type of Man, Realizing the Ideal of Perfect Likeness to the Divine Image, and Fitness for the Goal of the Geologic, or Telluric, Progress 213
    (I.) The Second Man 215
        Life and Character of Christ 217
            (1) The Sinlessness of Christ . . . 219
            (2) Christ's Claim to be Divine . . . 224
    (II.) The New Race 228
12. The Anticipation in Prophecy of a Universal and Eternal Kingdom of God, the Final Scene in the Long Series of Dispensations introduced by the Geologic Ages 231

II. *The Historical Adjustment* 241
Christ the Centre of History 241
1. Christ the Centre of Jewish and Christian History . 241
2. Christ the Centre of Gentile History 246
    (1) Central Period in Roman History . . . 246
    (2) Relation of the Roman Empire to the Christian Church 246
3. The Dicentric Character of History as Related to the First and Second Advents of Christ 248
4. The Central Position of the Work of Redemption as the End to which all the Great Events of History are Adjusted 249
    (1) Separation of a Particular Nation to Prepare for Christ's Coming 250
    (2) Four great Gentile Empires Preceding the Kingdom of God 251
    (3) Preparation and Dispersion of the Greek Language 251

Digitized by Google

PAGE
(4) Demonstration of the Inadequacy of Philosophy 251
(5) The Dispersion of the Jews 251
(6) The Destruction of Jerusalem 252
(7) The Overthrow of Heathenism in the Roman Empire 252
(8) The Invasion and Overthrow of the Empire of Western Rome by the Goths and Vandals . 252
(9) Parallel History of the Papal and Mohammedan Powers 252
(10) Preservation of a Succession of Faithful Witnesses to Gospel Truth 252
(11) The Reformation 253
(12) The English Revolution 253
(13) Second Stage of the English Revolution in 1688 253
(14) The Foundation of the American Republic . 254
(15) The French Revolution 254
(16) Revival of Spiritual Religion in the Eighteenth Century 255
(17) Present Evangelization of the World by Missionary Effort 255
III. *The Astronomical Adjustment* 257
I. *Number in the Bible* 257
1. Use of Threefold Numbers in Scripture . . . 258
2. Of Fourfold Measures 260
3. Combination of Threefold with Fourfold in Sevenfold . 262
4. Use of Sevenfold Numbers 263
5. Twelvefold Numbers 264
6. Fivefold and Tenfold Numbers 266
7. Palingenetic Numbers 267
II. *Analogy in Revealed Times* 270
Levitical Times 272
1. The Week of Days 272
2. The Week of Weeks 274
3. The Week of Months 274
4. The Week of Years 275
5. The Week of Weeks of Years 276
Prophetic Times 277
6. The Week of Decades 277
7. The Week of Weeks of Decades 278
8. The Week of Years of Years 279
Palingenetic Times 280
Conspectus of Revealed Times 284
III. *Scientific Basis of the Chronology of the Four Empires* . 292
Astronomical Canon of Ptolemy 292

Digitized by Google

PAGE

IV. *Chronology of our Lord's Passion* 299
Year of our Lord's Passion 301
1. Relation of the Central Dates in Christ's Redeeming Work to the Principal Dates in the Levitical Calendar 302
2. Relation of the Period of Christ's Ministry and the Time of His Death to the "70 Weeks" of Prophecy . 303
3. Interval from the Nabonassar Era, February 26, B.C. 747, the Starting Point of the Canon of Ptolemy, to the year of our Lord's Passion, A.D. 29 306
4. Interval of 1,260 Lunar Years (15,120 Lunations) from the Era of Nabonassar, February 26, B.C. 747, to the Fall of Romulus Augustulus (end of the Western Roman Empire), August 22, A.D. 476. 309
5. Interval of 15,120 Days, or 42 Prophetic Years, from Palm Sunday, A.D. 29, to the day of the Conflagration of the Temple, A.D. 70 312
6. Interval of 57 Days from Palm Sunday to Pentecost Sunday 314

V. *Adjustment of Natural Times to Revealed* 317
Chronological Adjustments in Nature 317
1. Incommensurateness of the Primary Terrestrial Time Units 320
2. Cyclical Character of the Prophetic Times. Discoveries of M. de Cheseaux 324
3. Messianic Time System 331
(I.) Central Chronological Elements 331
(II.) Vital Periodicity 332
(III.) Ratio of Vital Periodicity to Historic . . 334
(IV.) Adjustment of Epact Chronology to the 33 fold Ratio 337
(V.) Astronomic Measures of the 33 fold Ratio . 338
(VI.) Modification of the 1 Month to 1,000 Days Epact Ratio in Harmony with Messianic and Prophetic Times 338
(VII.) Adjustment of Solar Epact to the 70 Years' Cycle 340
(VIII.) Relation of the 2,300 Years' Prophetic Period to the most Central and Fundamental Cycles connected with the Two Forms of Epact . 343
(IX.) Foundation for a Correct Calendar in the 2,300 Years' Cycle. 343
(X.) The Arithmetical and Astronomical Character of the Prophetic Period of 2,520 Years, or "Seven Times" 345

Digitized by Google

PAGE

(XI.) Application of the 33 fold Vito-historic Ratio to the Period of the Four Prophetic Empires . 348
Calendar of "the Times of the Gentiles" . 351
(XII.) Adjustment of the Planetary Periods to Redemption Chronology 354
Revolutions of—
(a) Mercury 356
(b) Venus 360
(c) Mars 364
(d) Jupiter 367
(e) Saturn 368
(f) Uranus and Neptune 369
Revolutions of the Sun, Moon, and Planets in the Times of the Gentiles 371
Historical Dates in the Course of the Four Empires Reckoned from the Nabonassar Era 377
Solar and Lunar Tables Based on the Prophetic Times 379
IV. *The Moral Adjustment* 382
Human Aspects of the Work of Redemption . . . 382
Wider Aspects of the Moral Adjustment.—Relation of Redemption to Fallen and Unfallen Angels 387
The Fall and Expulsion of Satan 388
The Ministry of Holy Angels 400
Magnitude and Unity of the Sidereal System . . 408
A Night Visit to the Observatory 409
A Day Visit to the Observatory 415
A Glance at the Instrument of Spiritual Perception—the Christian Consciousness 421
General View of the Moral Adjustment 432
Summary of the Argument 436
Conclusion 454
I. The Harmonization of Religion and Science . . 454
II. The Harmonization of Revelation and Nature . 470
1. Confirmation of the Christo-Centric Principle. 470
2. Application of the Christo-Centric Principle . 479
Appendix 505
Explanatory of the Tables in Vol. II.

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INTRODUCTION

Faith and Free Thought.

The history of Faith and Free Thought exhibits the alternate action of two opposite movements, like the forward and backward swing of a pendulum, or the advance and retreat of the tides. So uniform are the recurrences of the movement as to evince the reign of law. The triumph of Christianity over Paganism was followed by the rise of Free Thought in the Middle Ages, and the return to the primitive faith which characterized the Reformation was succeeded by the reactionary wave of infidelity which rolled over Europe in the 17th and 18th centuries. Indirectly occasioned by this anti-Christian movement the evidential works of Pascal, Grotius, Abbé Migné, Butler, Lardner, and Paley indicated the rise of a counter current commencing to stream in the opposite direction. The great revival of spiritual life in the 18th century, which affected the English-

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speaking population on both sides of the Atlantic, resulting from the powerful proclamation of the primitive gospel message, marked a later movement of the same current, and the missionary enterprises to which that revival has given birth have influenced all the countries of the world. Now in the 19th century we are witnessing a movement of an opposite character. One of the most prominent features of the present century has been the progress of Science, and the premature attempt to systematize newly-gained scientific knowledge has occasioned a wide-spread attack on the foundations of the Christian faith. On the Continent, in England and America, large numbers of educated persons have been led as a result to reject the teachings of Revelation as inconsistent with the facts and laws of Nature, and to abandon religion for Naturalism. The change going forward in the world of thought is not merely speculative but practical, and is becoming political. Separating itself from the past, the present age is taking a new departure, with no definite head-lights in view. "The blind unconscious forces of Nature working without end or aim," are regarded by not a few leading minds as "the effective natural causes" of the order of the Universe. All forms of life, physical, mental, moral, and spiritual, are represented as having arisen by a process of purely natural development. By an extreme section of Evolutionists mind is held to be the outcome of matter, and the moral world to be simply the product of the physical. The advocates of the new view are filled with confidence as to the issue. "What the greatest thinkers think to-day," they tell us, "the mass of thinkers will think to-morrow, and the great army of non-thinkers will assume to be self-evident on the day after." Already, however, internal conflicts have begun to agitate and trouble the sceptical camp. Pantheists, Agnostics, Atheists, and Positivists, "unceasingly refute each other"; new theories of evolution are stoutly opposed by theories

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of still newer date; the boasted *terra firma* of so-called science quakes and crumbles beneath ambitious structures too hastily built upon it; while Pessimism, the legitimate offspring of modern Materialism, projects its dark shadow over the field of thought, and proclaims as the outcome of knowledge the gospel of despair. The practical results of current scepticism are far from satisfactory. With the progress of Rationalism there is a growth of Radicalism and Nihilism, and the destruction of religious faith threatens to involve, on a more or less extended scale, the destruction of civil order and common morality.

The reaction which might be expected against the anti-religious and anti-rational doctrines promulgated in the name of Modern Science is, however, beginning to appear. Though imperfectly developed, certain leading features can be plainly traced in this counter current, which we now proceed to indicate. A brief study of the movement will form a suitable introduction to the present work.

I. The Reaction in Science.

1. *There is arising in the present day a reaction against the theory of Naturalism.*

A striking illustration of this fact is seen in the reception which has been accorded to Mr. Balfour's recent work on "The Foundations of Belief," in which the creed of Naturalism is arraigned, exposed, and condemned at the bar of reason. The theory that "dwarfs" and drags in the dust our estimate of the importance of man, that makes "his very existence an accident," his story only a passing episode "in the life of one of the meanest of the planets," that, from some unknown origin, after infinite travail evolves through strife, "famine, disease, and mutual slaughter," a race "with conscience enough to feel that it is vile, and intelligence enough to know that it is insignificant"; and then consigns that race with all its labours, genius, devotion, sufferings,

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and aspirations to the pit of everlasting oblivion, to be as though it had never been—such a theory does violence to the deepest instincts of reason, and destroys the foundations of morality. "All that gives dignity to life, all that gives value to effort, shrinks and fades under the pitiless glare of a creed like this."[1]

2. *There is appearing in the present day an increasing sense of the immense difficulty of the problem of the Origin of the Physical, Mental, and Moral world, and of the insufficiency of the various theories of Evolution which have been put forth as solutions.*

The knowledge of man's necessary ignorance of truths lying beyond certain comparatively narrow limits, or the knowledge of the *limitation* of his mental powers which has already, to so large an extent, permeated the world of Philosophy, is beginning to penetrate the world of Science. The maxims of Philosophy that "we know nothing in its cause," "that all human knowledge is but qualified ignorance," and that ignorance is alike the starting-point of knowledge and its goal, are obtaining unexpected recognition and acceptance in the schools of Science. The effort to explain the method of Creation is producing a deepening sense of its mystery. The various solutions promulgated by "the day labourers" of Science are felt to be insufficient. Evolution unquestionably exists in Nature, and links the present with the past; but *how far* it prevails, and *how* the innumerable species of plants and animals, and all the marvels of organized existence were evolved, if evolved at all, still remain unexplained. Professor Huxley confessed at a recent meeting of the British Association that neither Darwinism, Spencerism, Haeckelism, nor Weismannism, can be regarded as representing or expressing the real method of Evolution. The key to the evolutionary process

[1] "Foundations of Belief," pp. 30, 77.

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has not yet been found. In Herbert Spencer's view the theory of "Natural selection" is a "contribution," and nothing more, to a solution of "a subject of enormous complexity and extent."

Thus as we advance the mystery deepens. We increase our powers, but no telescope can show the origin of things, no microscope can reach it. History confesses it to be beyond her horizon. Such facts reveal Science to herself. Science is but a branch of human knowledge, and all human knowledge is *insular*, or is to the reality of things as an island to the sea. The figure only faintly images the truth, for as man compares *what is to be known* with his *faculties of knowing*, he finds that the disproportion which exists between them is that between the finite and the infinite.

3. *There are signs of a revived acknowledgment of the existence of design in Nature.*

In an article contributed to the *Nineteenth Century*, upon the "Factors in Organic Evolution," Herbert Spencer condemns the "popular" theory of Evolution through "spontaneous" changes "*fortuitously arising*" as wholly inadequate, and shows that the development of organic forms "must necessarily depend on an immense number and variety of adjusted changes in many different organs, all co-operating with each other, and all nicely adjusted to the improved functional actions in which they must all partake." He reduces the practical impossibility of such changes occurring as the result of *accident* to a numerical computation, and tells his opponents *that the chances against any adequate re-adjustments fortuitously arising "must be infinity to one."* [1] On the other hand, as quoted recently with general approval by the President of the British Association,[2] Lord Kelvin, whose high position in the scientific world none will question,

[1] "A Great Confession." Review of Herbert Spencer's article by the Duke of Argyll, *Nineteenth Century*, Jan., 1888.

[2] Marquis of Salisbury, 1894.

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expresses his recognition of design in Nature in the following memorable terms: "I have always felt that the hypothesis of Natural Selection does not contain the true theory of Evolution, if Evolution there has been in biology. I feel profoundly convinced that *the argument of design has been greatly too much lost sight of in recent biological speculations. Overpoweringly strong proofs of intelligent and benevolent design lie around us*, and if ever perplexities, whether metaphysical or scientific, turn us away from them for a time, *they come back upon us with irresistible force*, showing to us through Nature the influence of a free will, and teaching us that all living things depend on one everlasting Creator and Ruler."

4. *There is a frank confession that the theory of "Natural Selection," which has been supposed to explain the whole process of Evolution, affords no basis for morality.*

In 1892 Professor Huxley published in the November number of the *Fortnightly Review* "An Apologetic Irenicon," in which he admitted that "the notion that the doctrine of Evolution can furnish a foundation for morals" seemed to him "an illusion." In the Romanes' lecture the following year he laboured to show that "the ethical progress of society depends, not on imitating the cosmic process, still less in running away from it, but in combating it." Goodness or virtue, so far from being characterized by "ruthless self-assertion, demands self-restraint." "It repudiates the gladiatorial theory of existence." How to build morality upon Evolution scientists have not yet discovered.

5. *There is a growing perception of the important truth that Religion, and especially the Christian Religion, has been an essential factor in the progress of civilization.*

Published the year after Professor Huxley's Romanes' Lecture, Mr. Benjamin Kidd's work on "Social Evolution," of which about 50,000 copies have been sold since the spring

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of 1894, traces the part which Religion has played in the development of society, showing that "the Christian ethical system is an essential factor in all the social progress of western civilization, and were that factor to be withdrawn decadence would, from that moment, inevitably set in." He maintains that "the interests of the individual and those of the social organism to which he belongs are not identical," but "actually antagonistic," and that social morality rests on "ultra-rational sanctions"; in other words, that its foundation is "super-rational" or religious. "The essential element in all religious beliefs must apparently be the *ultra*-rational sanction which they provide for social conduct."[1] This view is combated in Professor Drummond's still more recent book on "The Ascent of Man." While admitting that "as a vindication of the dynamic power of the religious factor in the evolution of mankind, nothing could be more convincing" than Mr. Kidd's argument, Professor Drummond opposes his attempt to put Social Evolution on an ultra-rational basis. In his reply to Professor Drummond Mr. Kidd states that he "did not put it there, *he merely found it there*, where, as it appears to him, every close student of our social systems, our history, and even our systems of jurisprudence will ultimately find it, if only he be able to start with a mind free from prepossession, and to keep it free from confusion."[2]

6. *There is a confession arising in the sphere of educated thought that the frame of mind characteristic of Sceptical Science has been marred by narrowness and dogmatism, and productive of dissatisfaction and barrenness, through its neglect of the light addressed to the higher moral and spiritual faculties.*

Perhaps there is nothing more suggestive or sad in the annals of modern science, as illustrating the effect of Materialistic doctrine, and of the habit of mental absorption in purely physical questions, than the gradual decay and

[1] "Social Evolution," p. 101. [2] The *Expositor*, July, 1894.

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loss of the higher tastes and of the religious faculty in the naturalist Darwin as described by himself in his autobiography. "Disbelief," says Darwin, "crept over me at a very slow rate, but was at last complete." "It may be truly said that I am like a man who has become colour-blind." Though once capable of "wonder, admiration, and devotion" in the presence of the works of God, now not even the grandest scenes could "cause any such convictions and feelings to rise in my mind." Ceasing to believe in a future existence, he abandoned faith in religion. "For myself," he says, "I do not believe that there ever has been any Revelation."[1]

How striking a contrast with Darwin's experience is that of his friend, Mr. George Romanes, in whom the revival of the religious sentiment and re-awaking of the spiritual faculty took place, many years after his faith in Revelation had been destroyed by an unqualified acceptance of the hypothesis of Evolution. Romanes was a naturalist of a high order, as his works on "Animal Intelligence," "Mental Evolution in Animals," and "Mental Evolution in Man," demonstrate. The esteem in which he was held by Darwin is evinced by the fact that that great naturalist gave Romanes all his MSS. relating to psychological subjects with the request that he would publish any parts he chose in his works on Mental Evolution.[2] Perverted from religious faith by the influence of Materialistic science, in his early life Romanes published anonymously a work entitled "A Candid Examination of Theism," and in his riper years wrote a sequel to it, which he called "A Candid Examination of Religion." While the former work was decidedly anti-religious, the latter was not only religious but Christian. Thus the pendulum which had passed the point of rest returned in its necessary search for it. The law of moral gravitation cannot be mocked or ignored. There is a gravitation of the human

[1] "Life and Letters of Charles Darwin," vol. I., pp. 307, 311.
[2] "Mental Evolution in Animals," preface, p. 1.

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soul Godward, which must in the end prevail over Materialistic speculation. Well said Augustine: "Fecisti nos ad Te, Domine; et inquietum est cor nostrum donec requiescat in Te."

The bearing of Romanes' last work on the reactionary movement in the world of scientific thought is of such importance as to justify a somewhat extended notice of its frank confessions, and of the conclusions to which it points. Romanes commences his "candid examination of Religion" by acknowledging the tendency in scientific men to dogmatism. "Scientific men as a class," he tells us, "are quite as dogmatic as the straightest sect of theologians. . . . Never was any one more arrogant in his claims for pure reason than I was—more arrogant in spirit though not in letter, this being due to contact with science." Humbled by juster views of the office of reason, and the limitations of its range, he describes the object of his last treatise to be "not to impart any philosophical system, or even positive knowledge, but *a frame of mind*," free from "undue confidence in merely syllogistic conclusions" in "regions of high abstraction." Romanes then deplores the "oversight" of which he had been guilty in not being "sufficiently careful in examining *the foundations of his criticism*, i.e. the validity of its premises." He had recognised that the question of Theism from the side of Reason "turned on the question as to the nature of natural causation," but he had "*erred in not considering whether higher causes are not necessary to account for spiritual facts*, i.e. whether the Ultimate Being must not be at least as high as the intellectual and spiritual nature of man, *i.e.* higher than anything merely physical or mechanical." He honestly confesses with Pascal that "*man without God" is miserable.* "Some men," he says, "are not conscious of the cause of this misery; this, however, does not prevent the fact of their being miserable. For the most part they conceal the fact as well as possible from themselves, by occupying their minds with society, sport, frivolity of all kinds, or, if intellectually disposed, with science, art, literature, business, etc. This, however, is but to fill the starving belly with husks. *I know from experience* the intellectual distractions of scientific research, philosophical speculation, and artistic pleasures; but am also well aware that even when all are taken together and well sweetened to taste, in respect of consequent reputation, means, social position, etc., *the whole concoction is but as high confectionery to a starving man.* He may cheat himself for a time—especially if he be a strong man—into the belief that he is nourishing himself by denying his natural appetite; but *he soon finds that he was made for some altogether different kind of food*, even though of much less tastefulness as far as the palate is concerned." There is "a vacuum in the soul of man which nothing can fill save faith in God." In relation to the question of

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the evidence of the truth of Christianity Romanes quotes John Hunter's characteristic saying, "Do not think: try," and counsels his readers to "*try the only experiment available*—the experiment of faith. *Do the doctrine, and if Christianity be true the verification will come*, not indeed mediately through any course of speculative reason, but *immediately by spiritual intuition.*" "Christian belief is much more due to doing than to thinking, as prognosticated in the New Testament. "If any man will *do* His will, he shall *know* of the doctrine, whether it be of God" (John vii. 17). As his deep personal conviction he declares that "only to a man wholly destitute of spiritual perception can it be that Christianity should fail to appear the greatest exhibition of the beautiful, the sublime, and of all else that appeals to our spiritual nature which has ever been known upon our earth."

"It will surprise no one to learn," says the Editor of Romanes' "Thoughts on Religion," that "the writer of these 'Thoughts' returned before his death to that full, deliberate communion with the Church of Jesus Christ which he had for so many years been conscientiously compelled to forego."

The reactionary movement which took place in the mind of the naturalist Romanes obeyed a law revealed in history, and reflected in Nature. As in the material world the perturbations which arise are balanced by opposing movements tending to secure the stability and harmony of physical nature, so in the mental and moral sphere. In both worlds the perturbations which occur work within fixed limits. The recognition of opposing tendencies in the human heart producing *motion towards God, or away from God*, is essential in order to the comprehension of history. As the one or the other prevails there is belief or scepticism. Both tendencies are deep, powerful, and active, and the history of mankind displays their alternate supremacy.

2. The Reaction in Criticism.

The breach between modern culture and Christianity which has been created in the name of Science has been widened by Criticism. Inquiries have been conducted into the age, authorship, and history of the books of the Old and New Testament by critical students whose tendency towards

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Rationalism has been of the most marked description. As rationalistic science has attempted to explain the origin of the system of Nature, so rationalistic criticism has sought to account for the origin of the volume of Revelation. Each has devoted attention to the question of origin, and each has undertaken a task plainly beyond its powers. The result has been in each case the development of conflicting theories and antagonistic schools of thought. Meanwhile a reactionary movement in Biblical criticism, analogous to the movement we have pointed out in science, is operating in favour of the traditional view, as confirmed by fresh discoveries in the fields of linguistic, historical, and archæological investigation.

1. *The investigations which have succeeded the attacks of criticism have produced "a growing sense" that in accepting the New Testament narrative, the Christian Church stands "on firm historical ground."* [1]

The gospels have been the central battlefield of the conflict. Here two celebrated Swabian critics, Strauss and Baur, led the attack. Strauss, denying the possibility of miracles, maintained that the gospel history was "a mere chain of myths," while Baur represented it as "the natural product and combination of innumerable pre-Christian forms of thought, belief, and expectation." The two theories, so far from harmonizing, are mutually destructive. Rejecting both these theories, Renan, whose "Vie de Jésus" has been translated into all the languages of Europe, affirms the historic reality of the things described in the gospel narratives, praises the originality and moral superiority of Christ in the highest terms, and sees in His advent the chief event in the world's history. "Christ was the Author," says Renan, "of the finest moral precepts the world has ever received"; in Him "God truly dwelt on earth"; He revolutionized the

[1] "Christ in Modern Theology." Fairbairn, p. 286.

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world, and "proclaimed the principles upon which Society has reposed for eighteen hundred years," and yet He entertained the most vain and extravagant conceptions of His mission, and misled His disciples and the ignorant populace by pretending to work miracles in order to demonstrate His prophetic vocation. "In Him was concentrated all that is good and elevated in our nature"; He will "never be surpassed"; and yet His conduct was marred by feebleness, harshness, falsehood, and capriciousness. The Christ whose character was thus, according to Renan, a flagrant contradiction, and His life a lie, is nevertheless glorified as "the corner-stone of humanity." To "tear His name from the world would be to shake it to its foundations." "Rest in Thy glory," says Renan, addressing the caricature upon the canvas; "Thy work is completed, Thy divinity is established." "Between Thee and God man will no longer distinguish."

Strauss, Baur, Renan—which are we to believe? The first and second are confuted by history, the last by reason and common sense. It is harder to believe in the Christ of Rationalism than in the Christ of the Gospels. Self-contradiction is graven upon the theories of unbelief. But there is a brighter side to the subject. The oppositions of scepticism to the gospel narrative have not been without valuable results. From the conflict they have provoked a new literature has sprung into existence whose object is "to conceive and represent Christ just as He appeared in history." Neander, Gess, Steinmeyer, Luthardt, Volkmar, Grimm, Lasserre, Pressensé, Geikie, Farrar, and Edersheim have done much to enable us to understand the world which surrounded Christ, and to appreciate His character, history, teaching and work. Their investigations have greatly increased the evidence of the truth of the Gospels, and have obtained for the subject they have elucidated a central position in modern theology.

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2. *The warfare waged over the Christian documents in modern times has resulted, according to the confessions of scepticism, in the demonstration that at least four of Paul's epistles (Romans, 1st and 2nd Corinthians, and Galatians) belong to the century and period to which they are assigned by tradition.*

Even Baur, who held that all the other books of the New Testament (except the Apocalypse) are spurious productions of a century later, was obliged to admit that these four epistles of Paul are genuine letters of the first century. "It is not much to be grateful for that he grants the genuineness of these, for they carry on their face such marks of strong personal feeling, and are so manifestly not the work of a forger, but the outpouring of a heart stirred to its depths by the incidents of a real life, that whoever would deny their genuineness would pronounce on himself the sentence of incapacity to distinguish true from false."[1] But these four epistles of Paul contain plain and frequent references to the leading facts of gospel history, to the then recent advent, humiliation and poverty of Christ; to His personal character, His ministry to the Jews, His betrayal, His death by crucifixion, burial, and resurrection on the third day; His appearances after His resurrection to Peter, to the twelve, to five hundred brethren at once (of whom the greater part were then living), to James, to all the apostles, and to Paul himself; the mission and ministry of Peter; the ordinances of baptism and the Lord's Supper, the coming of the Spirit, His supernatural gifts, the Christian miracles, the founding, sufferings, and growth of the Church, etc. It cannot be questioned that from these first-century letters of an admitted eye-witness of much that he records *a fifth gospel might be compiled*, containing substantially the same narrative as that set forth by the four evangelists, and thus confirming in the strongest way their testimony.[2]

[1] "Historical Introduction to New Testament." G. Salmon, D.D., p. 20.

[2] I may add here that in my view one of the most interesting and im-

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3. *There is evidence in relation to the Old Testament scriptures that "the end of the nineteenth century is witnessing an ebb of the wave of historical criticism which began to flow more than a century ago."* [1]

Springing from the soil of German Rationalism and French infidelity the so-called "higher criticism" had "spared nothing sacred or otherwise, and in its progress had transformed the history of the past into a nebulous mist." Astruc and De Wette hazarded conjectures as to the structure of the Pentateuch; Ewald, Vatke, Graf, Kuenen and other critics carried the disintegrating process still further, applying the boldest hypotheses to the destruction of the sacred text; while Wellhausen, advancing beyond the mutilation of documents, the displacement of names, events, and dates, strove to convert history to legend, and to reduce the riches of Old Testament Revelation to a medley of disordered facts, fictions, and immoralities. According to the wild theories of this lawless and arrogant critic, the Jehovah of the Old Testament was a mere tribal deity; his servant Moses never prohibited the worship of images, while he sanctioned the worship of the brazen serpent, priests and prophets forged

portant evidences of the early first-century date of the four Gospels is the prominent use in them of the word "*kingdom*" (βασιλεία) in contrast with "*church*" (ἐκκλησία). None can question that those to whom our Lord's discourses were addressed were *Jews expecting the kingdom foretold in the prophets*; hence the *kingdom form* of the teachings in the Gospels, in contrast with the later *church form* of the teachings in the Epistles. While the word "kingdom" occurs constantly in the Gospels, and seldom in the Epistles, the word "church" occurs continually in the Epistles, and only in two instances in the Gospels (Matt. xvi. 18; xviii. 17). The idea of the "kingdom" was certainly *anterior* to that of the "church," and *the prominence of the former, and almost total absence of the latter, in the Gospels*, confirms in a very remarkable way their genuineness and early origin. The *kingdom form* of the teachings of the Gospels proves that they belong to an earlier period than Pauline epistles, admitted by the most sceptical critics to have been written before the destruction of Jerusalem.

[1] Professor Sayce in "Lex Mosaica," p. 1.

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the books of the Law, etc. On searching for the proofs of Wellhausen's theory we find they are not forthcoming. "It is all theory based on theory, supported by theory, and resulting in theory." "The narrative exists simply for the construction of the theory; the theory is not materially suggested by the narrative, nor is it in any way dependent upon it, because as soon as any incident or statement is found inconveniently rigid for the requirements of the theory it is ruled out of court as unhistorical or spurious."[1]

The "higher criticism" thus developed in Germany has now been transplanted to England and America, where, however, it appears in less startling and repulsive forms, and animated by a more reverent spirit. Thus Canon Driver's "Introduction to the Literature of the Old Testament," while arbitrarily cutting up the text of scripture into innumerable shreds and fragments, and assigning their sources with a dogmatic confidence which ill becomes one who has nothing to guide his judgment but the documents which he mutilates, acknowledges some sort of inspiration, and affirms that in revealing Himself to Israel God prepared the way for the manifestation of Himself in Jesus Christ. Still, so complex does the problem of textual criticism become in the hands of this critic as to make it practically impossible to teach the Bible to any man of ordinary intelligence. "How can persons, lay or clerical, who are neither scholars nor critics, be indoctrinated into a complicated system which involves a *J*, an *E*, a D^1, a D^2, a *P* (and possibly a P^2 and P^3), an *H*, and a final redactor or redactors?"[2] And were they able to understand it, what confidence could they repose in a professed revelation so marred by internal contradictions, misplacements, errors, and anachronisms? But the reactionary movement which might be expected in Old Testament criticism has already set in. In a recent volume of essays

[1] "The Law in the Prophets." Stanley Leathes, D.D., p. 2.
[2] *Church Quarterly Review*, vol. xxxiii. p. 370.

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by leading scholars, entitled "Lex Mosaica," Professor Sayce maintains that the ebb in the wave of destructive criticism had already commenced "before its tendencies and results had made themselves felt beyond a limited circle of scholars, and before its spirit and principles had influenced popular thought." In this masterly volume the contents of the Old Testament are examined in detail, the history is shown to be trustworthy, the law of Moses to be "presupposed throughout the history," and "the influence of the books of Moses implied in the books of the prophets"; and on the other hand it is demonstrated "that the view put forth by the new school of criticism is inconsistent alike with the language of the prophets, and with the facts of history." [1]

What is substantially the same argument is admirably presented in much briefer form in Professor Stanley Leathes' work entitled "The Law in the Prophets," in which all the writings of the prophets are gone through seriatim, and the thorough acquaintance of the prophets with the books of the law proved beyond possibility of denial.

4. *The historical truth of the Bible is strongly and increasingly confirmed by modern archæological discoveries.*

While the anti-scriptural assumptions and fine-spun conjectures of the "higher criticism" are slowly vanishing like smoke before the rising breath of a criticism of still newer and loftier origin, archæological discoveries are confirming the sacred records with constantly growing fulness and startling emphasis. The witness of archæology to the civilization and literary activity of the Mosaic age, and to the trustworthiness of Mosaic statements in relation to Egyptian laws, religion, history and topography, is clear and conclusive. The multiplied and detailed references in the writings of the prophets to Babylon, Assyria, Persia and Palestine have been sealed by a long series of discoveries illustrating the history, lan-

[1] "Lex Mosaica," p. 612.

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guages, manners and customs of these lands. The labours of Rawlinson, Botta, Layard, Hincs, Oppert, Menant, Norris, Lenormant, Sayce, Schrader, Smith, Conder and others, have brought to light countless treasures of antiquity, reflecting the truthfulness of the inspired record. Thousands of inscriptions have been deciphered, dead languages have been recovered; monuments exhumed; temples, tombs, palaces, and cities rescued from the dust of oblivion. We can walk to-day in the sculptured halls of Egypt and Assyria, and listen to the voices of monarchs, and peoples, whose living presence long since passed away. Not one word do these voices utter in opposition to the testimony of that sacred Book, whose venerable pages have come down to us from an equal antiquity: no, but with one consent they confirm the writings of Moses and the prophets, and contradict the positions of sceptical criticism. It is our confident hope that "as in early Greek history the discoveries of Schliemann and others have obliged us to reconsider the negative judgments of twenty years ago, and to admit the truth underlying 'the old traditions,' so archæological discovery will before long enable us to reconstruct that history of Israel of which modern criticism would fain deprive us."[1]

5. *A new and important branch of evidence is set forth in the present work connecting the Law and the Prophets, confirming the divinity of the Levitical economy, and demonstrating that the book of Daniel, which forms to so large an extent the foundation of the New Testament, is an inspired prophecy, and belongs to the period to which tradition has assigned it.*

The new witness brought forward by this work is *Astronomy*. According to the testimony of this unimpeachable witness the movements of worlds have been ordered in harmony with the revealed chronology of Redemption history.

In order to introduce the witness of astronomy in the most

[1] Professor Sayce, annual address, Victoria Institute, vol. xxiv. p. 26.

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interesting way at my command I will now invite the reader to visit the Observatory where I am in the habit of studying the wonders of the heavens.

A Visit to the Observatory.

The building, which stands on a hill overlooking the river Derwent, in the Peak of Derbyshire, is about fifty feet in length, and has a lower and upper floor. At the western end of the long lower room (most of which is furnished as a geological museum) there is a Transit instrument, with sliding shutters in wall and roof to permit of its use. Near the Transit instrument, standing against the wall on a stone support clear of the floor, is an astronomical clock, keeping time with the stars; while in the upper room, under a spacious revolving dome (built by Sir Howard Grubb, of Dublin), is a large equatorial telescope, more than a foot in diameter, driven by clockwork. Many star maps and smaller instruments are about, while in the library of Cliff House, connected with the Observatory, are shelves filled with astronomical works, and manuscript volumes containing notes and calculations which have been accumulating for a quarter of a century, on the relation of Natural Chronology to Revealed.

It was in the year 1870 that my attention was first specially directed to chronological astronomy. I was labouring on the Continent at the time, and the sudden outbreak of the Franco-German war, followed by the collapse of the French Empire, and the fall of the Papal Temporal Power at the moment when the Vatican Council decreed the dogma of Papal Infallibility, turned my thoughts to the predictions in Scripture prophecy with reference to the Papal system, and their fulfilment in the course of history. At an early point of my investigations I became acquainted with the fact that a Swiss astronomer, of the name of De Cheseaux, had discovered in the middle of last century that the prophetic

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periods 1,260 and 2,300 years, and their difference, 1,040 years, are lunar cycles, or cycles harmonizing the lunar month with the solar year, and consequently that these prophetic periods are closely adjusted to the Time order of Nature. The fact interested me exceedingly, and having always felt a special delight in comparing together the Works and Word of God, I began to explore the whole question of the relation which natural chronology bears to revealed, with the result that I soon made discoveries which filled my mind with wonder and admiration at the hidden wisdom and power of God, discoveries casting light on the order of history, the scale of the prophetic Times, their inter-relation, and adjustment to the revolutions not only of the sun and moon, but of the entire solar system.

Having been prevented from returning to the Continent by the Franco-German war, I took up my abode in Bath, where I began to accumulate books on astronomy, history, and prophecy, etc., and purchased a modest telescope of three inches aperture, and in the intervals of a busy life devoted to gospel labours, I laid the foundation for the works which I have since published on the fulfilment of Scripture prophecy. For more than seven years I prosecuted these studies, and then, in 1878, issued my first book on the subject, a volume of 700 pages, entitled "The Approaching End of the Age," now in its twelfth edition. In subsequent years I published "The Divine Programme of the World's History," and "Light for the Last Days," in the preparation of which my beloved wife, my fellow-labourer for many years in various branches of Christian service, took part. These two volumes were issued in our united name. Later on I delivered a course of lectures at Exeter Hall, which were published under the title "Romanism and the Reformation from the Standpoint of Prophecy," and after a visit to Rome and a journey through Italy, sent forth a volume entitled "The City of the Seven Hills." Of the two last-named books

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more than 15,000 copies have been printed, and altogether between forty and fifty thousand copies of my works on prophecy are now in circulation. Letters reach me from India, Australia, South Africa, America, etc., witnessing to the wide dispersion of these writings.

Since 1872 we have been enabled to found and direct three training colleges to prepare men and women for missionary labours in the foreign field, and to send out from these colleges more than eight hundred missionaries. Two of these colleges are in London, and one in Derbyshire. In the last-named locality, amid the quiet of the country, I have pursued in leisure hours my astronomical studies, and there the telescope of three inches aperture has been replaced by the large equatorial instrument under its convenient dome, together with a small Transit instrument which I employ chiefly for regulating the astronomical clock indispensable for work with the equatorial. Convinced by the studies which I have conducted that the Prophetic Times are so closely adjusted to the revolutions of the sun and moon that I *could derive the one from the other*, and believing that it would clearly demonstrate the astronomical character of the Prophetic Times in Daniel, to do this, i.e. *to derive the course of Solar years and Lunar months, to days, hours, and minutes, for thousands of years either past or future, from these prophetic Times*, I have had the calculations made which I now publish in the second volume (or appendix) of this work. These Astronomical Tables contain more than 100,000 solar and lunar positions, verified by 12,000 eclipses, and the whole of these 100,000 positions have been correctly calculated by means of the Prophetic Periods regarded as Astronomical Cycles. These tables have been submitted to the highest astronomical authorities in the country, and approved as correct and trustworthy. The demonstration they afford of the accurate adjustment of the Prophetic Times in Daniel to the long course of Solar

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and Lunar revolutions stretching over thousands of years is complete.

The subjoined letter from Dr. Dreyer, F.R.A.S., the astronomer in charge of the Armagh Observatory, and author of several standard astronomical works, certifies the correctness and value of the Tables which I have had calculated from the Prophetic Times in Daniel.

Dr. Dreyer's testimony.

"These tables give the date, hour and minute of every new moon from the year B.C. 1622 to A.D. 1934, as well as the Dominical letters and the time of vernal equinox for every year of this period. Hitherto chronologists who required the time of any new moon have had to calculate it from Largeteau's Tables published in the *Connaissance des Temps pour l'an* 1846; or, if very great accuracy was required, by Oppolzer's *Syzygien-Tafeln für den Mond* (Leipzig, 1881), but Dr. Guinness's Tables give the time of new moon by mere inspection without any calculation whatever. In his introduction the author illustrates the accuracy of his tables by a comparison with the time of the first solar eclipse of each century, taken from Oppolzer's *Canon der Finsternisse*, and shows that his Tables never differ from these more than two hours, while the differences frequently amount to only a few minutes.

"I have myself tested the Tables by means of a number of eclipses rigorously computed by Stockwell (eclipses observed in India B.C. 1386, 1301, 1250), by Schjellerup (B.C. 707, 599, and 547, observed in China), and by Newcomb (Arabian eclipses from the middle ages), and with the same result. *These Tables are therefore somewhat more accurate than those of Largeteau, and of course vastly more convenient, as they do not entail any calculation.*

"The Tables have been calculated by means of the luni-

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solar cycles discovered by the Swiss astronomer, De Cheseaux, about the middle of last century, but hitherto very little noticed by scientific men. The cyclical new moons thus found are given in the tables side by side with the true new moons obtained from them by equating for solar and lunar anomaly. Astronomers will be much interested in the remarkable accuracy obtained in this way by Dr. Guinness.

"The Tables will be of great practical value to chronologists and historians, who can find from them the day of the week, and the age of the moon corresponding to any date. Particularly to students of Oriental history they will be invaluable, as the moon is the clock-hand of Eastern nations. But they will also in many cases be of great use to astronomers as a ready means of finding by a mere glance the whereabouts of the moon in the sky at any time during the last three thousand years.

"J. L. E. DREYER."

"ARMAGH OBSERVATORY,
"*8th April*, 1895."

I have letters in a similar strain certifying the value of my Astronomical Tables from Mr. A. Marth, of Markree Observatory; Mr. W. T. Lynn (late of Greenwich Observatory); Dr. A. M. Downing, Superintendent of the "Nautical Almanac," and others, some of which are printed in the introduction to the second volume of this work. Dr. Downing's position gives his testimonial a special value, while Mr. Marth and Mr. Lynn are known over the world by their numerous contributions to astronomical literature.

The principal conclusions to which I have been led by my studies of astronomical chronology are the following :—

(1) Astronomy, which has been regarded by many as antagonistic to Revelation, is a Witness on its behalf.

(2) The chief link between the Bible and Astronomy is a *chronological* one.

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(3) The Levitical Calendar, which has regulated the religious observances of the Jewish nation for 3,500 years, is adjusted to Solar and Lunar revolutions.

(4) The Prophetic Times are adjusted to cycles harmonizing the revolutions of the sun and moon.

(5) The astronomical errors arising in the Levitical Calendar are corrected in the Prophetic Times.

(6) Levitical and Prophetic Times are connected by Analogy, forming a series of weeks, on various scales of magnitude, adapted to ceremonial and historic ends.

(7) Both Levitical and Prophetic Times are adjusted to New Testament Redemption history.

(8) Redemption Chronology is adjusted to Vital Periodicity.

(9) Vital Periodicity, Historic Times, and Astronomic Periods, form one Time System.

(10) The entire Time System, Natural and Revealed, centres in Christ.

Bearing of these Facts on Science and Criticism.

The Astronomical and Chronological facts set forth in this volume, and the volume of Tables which forms its appendix have an important bearing on the relations of Science and Criticism to the Bible.

The Astronomic Tables in this book are based on the Prophetic Times. If these Tables are trustworthy, Science confirms Scripture. Through these Tables Astronomy tells us that the movements of worlds have been ordered in harmony with the Times and Seasons of Redemption Chronology; that the adjustment is of the most profound and comprehensive character; that it was made by the Author of Nature before the foundation of the world, and will endure long after the present age with its oppositions to Revelation of Science, "falsely so called," has passed away. And this demonstration of the astronomic character of the Prophetic Times carries with it the conclusion that the book

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of Daniel in which these times are revealed is no forgery of the second century before Christ, but the product of inspiration; and consequently that its testimony as to its own date and origin is true, and absolutely trustworthy; in other words, that its prophetic visions date, as the book itself states, from the days of Nebuchadnezzar, Belshazzar, and Darius, or from the time of the Babylonish Captivity; a conclusion strongly confirmed by the prophecy of the "seventy weeks," or 490 years (Dan. ix.), which *extend from a decree to restore Jerusalem, issued later than the time of Daniel's prayer*, to the coming and cutting off of Messiah, followed by the destruction of the city and temple of Jerusalem. Such an interval did extend from the Persian restoration of Jerusalem by Artaxerxes to the Advent of Christ. This chronological prophecy compels us to date the revelation to Daniel at least 500 years before Christ, and excludes the Maccabean theory of the origin of the book of which it forms an integral part.

From the question of the movement in the world of thought to which the present work belongs, we now turn to the chief subject of the work itself—the relation of the Natural to the Revealed, expressed in the title,—

"CREATION CENTRED IN CHRIST."

While investigating during the last twenty-five years the relation of Natural Chronology to Revealed, I have been led to study the broader question of the relation of Nature to Revelation. The latter relation includes the former. The fact that Natural Times, Solar, Lunar, and Planetary are analogous and adjusted to Revealed Times, is but part of the wider fact that *Nature itself* in all its departments is analogous and adjusted to the order of things set forth in Revelation. The present work has been written to exhibit this relation, and to show that the testimony of Nature confirms the testimony of Scripture that Creation is Centred in Christ.

Parts I. and II. treat of Nature and Revelation separately,

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while Part III. traces their mutual relation. First, Nature's witness to God is briefly set forth; then the need of Revelation is shown, and a summary is given of the proofs of the existence of Revelation. The connection of the natural and revealed is then exhibited. Evidence is given that there exists in Nature a universal law of centralization controlling the inorganic, the organic, and the moral world; that such a law similarly exists in Revelation, linking in unity its various parts, and reigning in the system of Redemption which it reveals; and that the law of centralization not only prevails in Nature and in Revelation considered separately, but also in the relation of the one to the other; that the Natural is centred in the Revealed; and that as the Natural is centred in the Revealed, so the Revealed is centred in Christ, and that thus the whole system of things, both Natural and Revealed, is centred in Him.

In tracing the connection of Natural and Revealed chronology, the astronomic portion of the present work—its most original and important feature—adds a new contribution to the sum of Scripture evidence, and confirms the traditional view as to the authenticity and inspiration of the Book of Daniel. The natural measures of time—days, months, and years—are shown to be "incommensurate periods, whose fractional differences give rise by accumulation to a series of cycles constituting a definite, complex, far-reaching course of time, which, while unsuited as a whole to the uses of the Civil Calendar, is adjusted in all its parts and order to the times and seasons of Revealed Redemption Chronology." The year-day theory of the interpretation of the prophetic times is strongly confirmed by the *Tables* in the second volume of the work, based on its application, and with the year-day theory the historical system of prophetic interpretation.

In the words of Professor Birks of Cambridge, whose treatise on the year-day theory led to the present investiga-

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tion, we may say, "surely in the view thus unfolded" of the astronomic character of the prophetic times, "there is a simple grandeur which harmonizes with all the other features of these inspired predictions. A fresh light is thrown upon the words of the Psalmist, where the same word is employed as in these mysterious dates, 'He appointed the moon for seasons.' We are raised out of the contracted range of human reckonings to a lofty elevation of thought, and catch some glimpses of that mysterious wisdom by which the Almighty blends all the works of Nature and of Providence into subservience to the deep counsels of His redeeming love. A divine ladder of time is set before us, and as we rise successively from step to step, days are replaced by years, and years by millennia; and these, perhaps, hereafter, in their turn, by some higher unit from which the soul of man may measure out cycles still more vast, and obtain a wider view of the immeasurable grandeur of eternity. When we reflect also that the celestial periods by which these cycles are determined are themselves fixed by that law of attraction which gives the minutest atom an influence on the planetary motions, what a combination appears within sacred times of the most contrasted elements of Omniscient wisdom! Human science sinks exhausted at the very threshold of this temple of Divine truth. It has strained its utmost efforts in calculating the actual motions of the moon and the earth; but the determining causes which fixed at first the proportion of their monthly and yearly revolutions have altogether eluded its research. Yet these elements of the natural universe are linked in, by these sacred times and celestial cycles, with the deepest wonders of Providence, and the whole range of Divine prophecy. How glorious, then, must be the inner shrine, lit up with the Shekinah of the Divine Presence, when the approaches themselves reveal such a secret and hidden wisdom!"[1]

[1] Birk's "Elements of Prophecy," p. 371.

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Focal Point of the Work.

As a justification for the large number of subjects dealt with in the present work we may remind the reader of the great breadth of its theme—Creation Centred in Christ. Like a telescope of large aperture, this book is *a light collecting instrument constructed to bring a broad beam of light to a focal point.* As Copernicus applied the Helio-centric principle to the problem of the motion of the planets, so the present work applies the Christo-centric principle to the problem of the constitution and course of the seen and unseen Universe, or of the Universal System, Natural and Revealed.

Our study of this subject opens with the conflict between Reason and Faith, and ends with their reconciliation. Reason and Faith should not be regarded as antagonistic, but as associated like the Warrior and the Angel in that noble creation of art in which Reason, represented as a man clad in armour, climbs, sword in hand, the steep mountain, planting, amid the mists, his feet upon its rocky summit; while Faith as an angel soars beside him on outstretched wings towards a still higher sphere. Beneath them lies the darkness of earth, above them shine the stars of heaven. The countenance of Reason is sternly earnest, while the face of Faith is peaceful and radiant. Reason, looking downward on the rock on which it plants its feet, grasps with the right hand the sword, while with the left it lightly leans on the shoulder of Faith. Faith, gazing only heavenward on the vision of the divine, folds its hands in prayer, needing no earthly support. Both ascend to God. Both have come from Him. Free, yet bound together, distinct and widely different, yet for ever united in their act and aim, they seek and find in Him their centre and their home.

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PART I.

NATURE.

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NATURE'S WITNESS TO GOD.

NATURE, including the visible heavens, the Sun and Moon ruling the day and the night, the surrounding Planets and more distant stars, together with our own Earth "circled by air and ocean," and filled with the marvels of organic life, constitutes a system, or "harmoniously ordered whole," whose Phenomena and Laws are already to a large extent revealed "to the mature intellect of mankind as the result of long and laborious observation."[1]

It is affirmed by Theists that the existence of Nature points to the existence of God; that the Unity of Nature is a witness to the Unity of God; and that the wisdom, power, and goodness of God are discernible in the constitution and course of the natural world. Are these affirmations reasonable, or does the study of Nature compel us to abandon them as baseless fallacies of the imagination? Many eminent men of science, such as Copernicus, Kepler, Newton, Faraday, have been believers in God. They found that a knowledge of the order existing in Nature—a discovery of Nature's laws—only confirmed their faith in the being, wisdom, power, and goodness of God. Ought it to have been otherwise, and should their studies have conducted them rather to the darkness and despair of infidelity or atheism? Their belief in God lay to some extent at the base of their discoveries. They would not have patiently investigated through long years the phenomena of Nature, in the hope of discovering the reign of all-pervading law and harmony, had they considered

[1] "Humboldt Cosmos," I. 2.

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the universe to be the child of chance, or the perishing product of blind material forces operating without the guidance of intelligence. Their faith outran their vision, and prompted the investigations which led to their marvellous discoveries. Was their faith irrational? Does science, rightly so called, quench the light of faith? Or does it rather aid it by extending illimitably the view of the evidence of God's existence, and of the perfections of His character and government?

In replying to these questions, and endeavouring to set forth briefly the witness which Nature bears to the existence and attributes of God, we will consider in turn the various positions which are possible in relation to the subject of the origin of the universe. These are five in number—the Polytheistic, the Pantheistic, the Atheistic, the Agnostic, and the Theistic.

1. The POLYTHEISTIC. According to this view, Nature is the work of a plurality of gods. One god made and governs one part of the universe, and another god another part. It is hardly worth while to reason seriously against this crude conception. Whatever may have been its origin, it did not originate with science, nor does it prevail at the present day in any of the more civilized and enlightened countries of the world. It may suffice to say that the Unity of Nature is a ceaseless protest against Polytheism. Nature is one. It is not the confused, contradictory, self-destructive product of many conflicting powers and intelligences. Through all its vast extent can be traced the reign of the same great laws. One Power, one Intelligence controls the whole. The Unity of Nature disproves and dispels the disjointed, incoherent scheme of Polytheism. True science stamps it as worthless and incredible.

2. The PANTHEISTIC. Nature and God are the same. There is no God distinct from the Universe. Creation and Providence have no existence. Nature never was created, and is not governed by a power or person distinct from and

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superior to the Universe itself. Nature is God, and God is Nature.

But this view confounds all the distinctions between good and evil. It not only identifies God with matter and with mind, but with right and with wrong, with law and with lawlessness, with the law-keeper and the law-breaker. Paul is God and Nero is God; the martyr at the stake is God, and so is the persecutor who burns him. Here is a system or kingdom divided against itself. How can it stand? Reason and conscience alike protest against the fantastic and blasphemous dreams of Pantheism. Reason recognises the *dependent* character of the Universe, and Conscience the existence of a Supreme Ruler and Judge, to whom all moral beings are *accountable.*

"Pantheism," says McCosh, "is inconsistent with the intuitive knowledge which we have both of mind and matter. The Universe cannot be all matter, for we are conscious of ourselves possessing thought and intelligence, and of planning, designing, and executing in the exercise of free will. It cannot be a mere organism, for we see material objects which are beneath the organic state, and we are conscious of souls which are above it. . . . Pantheism is inconsistent with the consciousness of self, with the belief in our personality; . . . with man's possession of a will, and a free will, . . . and with our sense of accountability to God. . . . We have only to follow out the doctrine of personal responsibility to find it setting aside every form of Pantheism." [1]

3. The ATHEISTIC. There is no God. Nature exists; it is the realm of law; throughout its measureless extent shines the splendour of celestial light; the stately sweep of innumerable worlds fills illimitable space with perpetual harmony; goodness glows in every sunbeam, beauty in every flower; the heart of man witnesses to affection, his reason to intelligence and truth, his conscience to duty, to virtue, to righteousness; but—there is no God! *Nature is a building without an Architect; a design without a Designer; a kingdom without a Ruler; a family without a Father.* But how does the

[1] McCosh, "Intuitions of the Mind," p. 402.

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Atheist *know* there is no God? Has he been to see? He was born yesterday and will die to-morrow. His little life is confined to this one world. Even of this world he knows but a part. He owns that everything around him is full of mystery. He confesses he knows next to nothing, yet he knows there is no God. He cannot climb to heaven to ascertain whether there be a God or not. He cannot assert that he has seen its throne and found it empty; but he knows there is no God! *He knows!* We may be permitted to question his knowledge. How does he know there is no God? He infers it from the existence of evil; but does he know the history and destiny of evil? Who told him that it was eternal? What evidence has he that it forms part of the foundation of the Universe? How does he know that it shall not yet be subdued and abolished? Since he knows so much, will he explain to us how the Universe has come to be what we behold? He cannot! He does not know. Only he knows there is no God! How little he knows to claim to know so much! How much more might he learn were he only to listen to the profoundest dictates of his own heart and conscience.

4. The AGNOSTIC. Nature is. That is all we know. Whether there is a God or not, we know not, nor can know. To assert or to deny His existence are both beyond our powers.

While denying our ability to infer the being of God from the testimony of Nature and conscience, the Agnostic admits the existence of an inscrutable Omnipresent power controlling the phenomena of Nature. "We are obliged," says Herbert Spencer, "to regard any phenomena as a manifestation of some power by which we are acted upon; though Omnipresence is unthinkable, yet, as experience discloses no bounds to the diffusion of phenomena, we are unable to think of limits to the presence of this Power; while the criticisms of science teach us that this Power is Incomprehensible. *And*

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this consciousness of an Incomprehensible Power, called Omnipresent from inability to assign its limits, is just that consciousness on which religion dwells." In this view Spencer maintains that religion and science are at one. He asserts that there "*can be nothing else than an entire agreement on this deepest and widest of all truths*"; and he bids us recognise in religion "*the high merit that from the beginning it has dimly discerned the ultimate verity, and has never ceased to insist upon it*;"[1] "*the one absolute certainty, the presence of an Infinite and Eternal energy from which all things proceed.*"[2] The Infinite Eternal Power whose existence the Agnostic thus admits is not, however, the mere mover of the material mechanism of Nature, but the Author and support of Reason and the Moral world. It is a Power revealed to and reflected by Intelligence; a Power recognised and mirrored by Conscience. It is therefore an Intelligent and Moral Power, in other words is God.

The Agnostic asserts that the Author of Nature is unknowable. "It would be more philosophical," says Frederick Harrison, "not to assert of the Unknown that it is unknowable." He adds, "as to acknowledging the Unknowable, or trusting in it, or conforming our lives to it, or looking to it for help—the use of such words about it is unmeaning." Agnosticism can be no basis for religion. "The roots and fibres of Religion are to be found in love, awe, sympathy, gratitude, consciousness of inferiority, and of dependence, community of will, acceptance of control, manifestation of purpose, reverence for majesty, goodness, creative energy, and life. Where these things are not, religion is not."[3]

5. The THEISTIC View. This is the view which has been held by the greatest, the wisest, and the best of mankind, from the most remote ages of which we have any record. It was the view of the good and wise in patriarchal times; it

[1] "First Principles," p. 99. [2] *Nineteenth Century*, January, 1884.
[3] *Nineteenth Century*, March, 1884.

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was the view held by the greatest among the philosophers of Greece and Rome. It has been for four thousand years the unwavering confession of the Jewish people. It is still the faith of 150 millions of Mohammedans; it has for nineteen centuries been the faith of the entire Christian world.

"There is in truth one only God," says Sophocles of Attica, "who made the heaven and the wide earth, and the blue depths of the sea, and the force of the winds."[1] "God arranged and established the whole world in which all things are fair and good,"[2] said Xenophon. "Can any one in his senses imagine," said Cicero, "that this disposition of the stars, and this heaven so beautifully adorned, could have been formed by a fortuitous concourse of atoms?" "I am convinced entirely that that which could effect so many and such great things must be a divine power."[3] "One energy," said Aristotle, "is invariably antecedent to another in time, up to that which is primarily and eternally the moving cause."[4] "This is what is evident to me," said Plato: "in the sphere of the known *the idea of the good is ultimate*, and needs an effort to be seen; but once seen, compels the conclusion that *here is the cause* for all things else, of whatever is beautiful and right: in the visible world, parent of light and of its lord; in the intellectual world, bearing itself the lordship, and from itself supplying truth and mind. And this is it which must fix the eye of one who is to act with wisdom in private or in public life."[5] "The first step to the right worshipping of God," says Seneca, "is to believe that there is a God. And next, to ascribe unto Him all majesty and goodness, without which true majesty cannot subsist; to know likewise that it is He who governs the world and presides over the Universe as His own, who hath taken mankind in general under His protection, and on some is

[1] "Sophoc. Fragm. apud Grot."
[2] "Xen. Mem.," l. iv. c. 3.
[3] "Cic. de Nat. Deor.," l. ii. c. 44.
[4] "Aristot. Metaph.," l. viii. c. 8.
[5] "Plato. Repub.," l. vii. c. 3.

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pleased to bestow particular favour. He can neither do nor suffer evil." "Nothing is hid from God. He is within our souls, and He comes into the midst of our thoughts." [1] "We must confess that God is," says Plutarch, "and that not with reference to time, but as being eternal and immutable, whom nothing can be before or after, past or future, elder or younger. Being essentially one, His eternity is included in a present existence, the always in the now. And God alone can thus truly be said to be, having neither a past nor a future existence, having neither beginning nor end. By this name, then, when worshipping Him, we ought to salute and call upon Him. The Deity is to be addressed by the name Ei,—Thou art,—because in Him there is no variableness nor change." [2]

These and similar reasonings of heathen minds proceed from the teachings of Nature, and confirm the declaration made by the Apostle Paul in Scripture, that "the invisible things of Him from the creation of the world are clearly seen, even His eternal power and Godhead." In the words of this great teacher addressed to Gentiles, God "left not Himself without witness, in that He did good, and gave us rain from heaven, filling our hearts with food and gladness."

But having stated these arguments, how small a part of the evidences for God's existence have we exhibited!

"Belief in God presses multifariously upon man." "There are so many reasons for it," says Coleridge, "within and without,—a grain of sand sufficing, and a whole universe at hand to echo the decision!—that for every mind, not devoid of all reason and desperately conscience proof, the truth, which it is the least possible to prove, it is little less than impossible not to believe; only, indeed, just so much short of impossible as to leave some room for the will and the moral election, and thereby to keep it a truth of religion,

[1] "Senec. Epis.," 83.
[2] "Plut. de Ei apud Delph.," c. 19, 20, 21.

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and the possible subject of a commandment."[1] Against Theism science has nothing to advance.

"If the doctrine of Providence," says Professor Huxley, "is to be taken as the expression in a way 'to be understanded of the people,' of the total exclusion of chance from a place even in the most insignificant corner of Nature; if it means the strong conviction that the cosmic process is rational; and the faith that, throughout all duration, unbroken order has reigned in the Universe—I not only accept it, but I am disposed to think it the most important of all truths. . . . If, further, the doctrine is held to imply *that in some indefinitely remote past æon, the cosmic process was set going by some entity possessed of intelligence and foresight, similar to our own in kind, however superior in degree;* if, consequently, it is held that every event, not merely in our planetary speck, but in untold millions of other worlds, *was foreknown* before these worlds were, *scientific thought, so far as I know anything about it, has nothing to say against that hypothesis.*"[2]

We welcome these recent significant admissions, but cannot rest satisfied with the merely negative position which they indicate. That science which is worthy of the name not only has "nothing to say against" the view that there is an Eternal Intelligence which guides with foresight the orderly course of the Universe of which it is the cause, but it frankly confesses that this is the teaching of Nature.

The modern materialism which regards the Universe, including its mental and moral phenomena, as a mere godless machine, is an unnatural abortion of science falsely so-called. Its misshapen, stunted form startles the eye by its hideousness when compared with the nobler conceptions which spring up spontaneously in human thought. To the unbiassed intelligence the Universe is "not without Mind, or Reason, or Pilot," *ἀνόον καὶ ἀλόγον καὶ ἀκυβέρνητον.* For Mind is not the exclusive property of Man! It is plainly visible in Nature. There is a Universal Mind revealed without us answering to our own intelligence. Even the mathematical powers of the human mind find themselves in harmony with a mathematical order in Nature which cannot have had a merely

[1] "Aids to Reflection," Edition 1843, vol. i. p. 135. First and rare edition, p. 177. [2] *Fortnightly Review*, Nov., 1892.

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material origin. The mathematical ratios which govern Nature defy materialistic explanations. The law of gravitation with its ratio of the inverse square is mathematical; the numerical laws of chemical combination are mathematical; the geometrical angles of crystals, and curves of flowers, the numerical vibrations of sound, of heat, of light, are mathematical. The mighty pillars and arches of the temple of Nature, its doors and windows, its aisles and transepts, have been built and ordered *according to rule and measure;* mind is everywhere, orderly mathematical mind, a mind analogous with our own, only infinitely transcending ours in the scope and wisdom and perfection of its designs. "The first guiding principle of all the sciences is the conviction that *the phenomena are governed according to the laws of the understanding.*" Our observation of Nature gives scientific results only because "The Universe is rational."[1] Deny the manifestation of mind in Nature! As soon or sooner let us deny its manifestation in man! The mind that shows itself in man is transcended by that which operates in Nature. The one is to the other but as the dew-drop to the ocean, or as the faint and fleeting meteor to the steadfast glory of the summer sun.

The highest act of human wisdom is to recognise a wisdom infinitely transcending that of man, filling, guiding, governing all things.

The contemplation of Nature compels the conclusion that "there is a Boundless, Eternal, Unchangeable, Designing Mind, not without whom this system of things coheres; and this mind we call—GOD."

And this conclusion is echoed and *confirmed by the voice of Conscience.* Every man carries with him an indestructible witness to God in his sense of moral responsibility to a righteous law which is above him; a law which commands all moral agents, and involves in its operation the moral govern-

[1] Naville, "Modern Physics," p. 160.

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ment of the world. It is by this power of Conscience more than by any mere observation of Nature that man's thoughts are directed to God. It is by the movements of a moral nature within him claiming supremacy over his thoughts and actions that he is led to believe in a Moral Ruler of the Universe; a Supreme and Righteous Judge, to whose searching glance he feels that his most secret acts and motives are open; to whom darkness and light are both alike, and before whom "the night shineth as the day."

In the order of External Nature *Reason* beholds the steps of the Author and Architect of the Universe; in the higher realm of the moral world *Conscience* recognises the presence of the Righteous Lawgiver and Judge; while in the inner region of experience the *Heart*, with its sense of dependence, its capacities for love, its griefs, its loneliness, yearns to find in the Creator and Ruler of all things the Friend and Father of the human spirit; its Deliverer from evil, its everlasting Sun and Shield.

The argument from Nature for the existence of God may be put as to its simplest elements in the following form:—

1. *Something has existed from eternity*, since something now exists, and *Ex nihilo nihil.*

2. *This earth and visible system have not existed from eternity.* Geology evidences the recentness of organized beings on the earth, and with Astronomy proves its originally molten state. Nature, as a chain of dependent links, cannot be eternal.

3. *Therefore this earth and the visible system are to be distinguished from the something which has existed from eternity*, as of *later date*, and as *derived* from that prior eternal existence which must be denominated the *Great First Cause.*

4. *The Rationality of the Universe, and the Moral law written in the human heart, prove the Rationality and Morality of the Great First Cause.*

The cause of intelligence must be intelligent. "The cause of Conscience must be moral."

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PART II.

REVELATION.

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CHAPTER I.

THE NEED OF REVELATION.

IS a Revelation needed? What are the facts as to the moral, mental, and physical condition of the world?

I. MORAL EVIL.

Goodness is the law of Being.[1] But goodness is not practically the ruling principle in man. There is a schism in the human soul. Man is a moral agent, through whose character there runs a profound irremediable rent, or contradiction. Conscience and inclination are opposed. *Man approves the better—and follows the worse.*[2] Let us see what are the evidences of this fundamental and long recognised fact.

1. *Man approves the better.*

By the constitution of his mind, man "approves of moral good and disapproves of moral evil." This can be established by the clearest and most indisputable proofs. We are inwardly conscious of exercising moral judgments. We express the fact that we do exercise such judgments every day in ways innumerable. All human laws recognise a distinction between right and wrong, good and evil. All courts of justice are based on the acknowledgment of such a distinction. All the words by which we approve or condemn moral acts bear witness to it. Man is so constituted that he cannot be wholly blind to the law of duty. He cannot utterly ignore the truth expressed in the words, You ought! He cannot

[1] "The idea of the good is ultimate." Plato, "Repub.," l. vii. c. 3.
[2] Video meliora proboque, deteriora sequor.

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wholly confound virtue with vice and vice with virtue. He is compelled by an indestructible sense, or moral instinct, to distinguish right from wrong, and to approve the one and condemn the other.

Testimony on this subject from ancient and modern writers, and from all parts of the world, might be multiplied to any extent. Not only are Jews and Christians agreed as to the existence of a moral law in the human heart, but the heathen themselves freely admit their inward consciousness of such a law, and expatiate upon its teachings. The declaration of the Apostle Paul that the Gentiles, "not having the law, are a law unto themselves," and that they "show the work of the law written in their hearts," is echoed by the utterances of Pagan philosophers. "Who ever came into the world," says Epictetus, the Stoic philosopher, without an innate idea of good and evil, becoming and unbecoming, happiness and misery, proper and improper, what ought to be done and what ought not to be done?" [1]

"He that is good, and lives after the principle of honour, will obey reason," says Aristotle, "but the bad man aims at pleasure, and is corrected by pain, like a beast." [2] "Good and worthy men discriminate rightly, and hate that which is unjust." [3] "The excellent and liberal man will so conduct himself *as if he were a law unto himself*." [4] "Wickedness, committed voluntarily, is the object of our hatred," says the Platonic philosopher, Maximus Tyrius.[5] "A wise man," says Homer, "beholding such evil deeds, would be filled with righteous indignation." [6]

"I cannot, when I see one thing to be the principal and most excellent, declare another thing to be so, in order to gain favour," says Epictetus.[7] "We ought to worship the

[1] Epict., l. ii. c. 11.
[2] Eth., l. x. c. 9.
[3] Arist. de Rhetor., l. ii. c. 11.
[4] Eth., l. iv. c. 8
[5] Diss. 41.
[6] Odyss., l. i. v. 228.
[7] Epict., l. ii. c. 23.

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gods," says Plutarch, "to honour our parents, to reverence our elders, to obey the laws, to give place to our superiors, to love our friends, to be discreet towards our wives, to be kind and affectionate towards our children, and not to be harsh towards our servants."[1] What a summary of social duties is here! Space and time would fail us were we to attempt to cite the evidence afforded by the Latin authors, Cicero, Ovid, Seneca, Tacitus, Suetonius, on the law of duty binding on man as man. Volumes on morality might be extracted from their writings. And what shall we say concerning the testimony borne by the great teachers of Arabia, Persia, India, and China, as to the moral duties of mankind? The Koran, the Zendavesta, the laws of Manou, the writings of Mencius, the precepts of Confucius, would seem, were we to quote them, to echo from the East the voices from the West to which we have already listened. Let one citation suffice. In the "Tchoung-Young" of Confucius, or discourse on how to keep in the middle path between extremes, occurs the famous sentence, "He whose heart is just, and who entertains towards others the same feelings he has towards himself, forsakes not *the moral law of duty prescribed for men by their rational nature;* he does not do to others that which he desires should not be done to himself."[2] With this lofty moral utterance the Chinese nation has been familiar for ages, and with a multitude of precepts and proverbs of analogous import. From the foregoing and other evidence we are justified in asserting that the Egyptians, the Babylonians the Persians, the Greeks, the Romans, the Arabians, the Hindoos, the Chinese, demonstrate, beyond all controversy, in their histories, their philosophies, their laws, their litanies, their religion, their very languages, the truth of the conclusion held universally by Jews and Christians, that man, by the constitution of his mind, distinguishes between right and

[1] Plut. de lib. Educ., c. 10.
[2] "Tchoung-Young," c. xiii. 3. "Livres sacres de l'Orient," Pauthier.

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wrong, good and evil, and that he "approves of moral good, and disapproves of moral evil." To deny to any man the possession of conscience is to degrade him beneath the level of a moral agent, and to question his humanity.

2. *Man, though he approves the better, follows the worse.*

While every man is possessed of a moral faculty, and while there is a universal consent among intelligent men as to the elementary outline of *what ought to be*, there is an equally universal consent that *what is differs from what ought to be;* that man does not follow the good which he approves, or avoid the evil which he condemns. Conscience not only witnesses to duty, but to sin. It is not only a law, but a judge and an accuser. Man is self-condemned. His own heart charges him with neglecting the good and committing the evil. The very same voice which announces in the soul that there is a moral law above us and binding on us tells us plainly that we have not kept that law.

There is a schism in the soul. It is the seat of civil war. "The soul consists of two parts," says Plutarch, "the one being addicted to the truth, and loving honesty and reason,—the other brutish, deceitful, and sensuous." [1]

"Our duty well we know and understand, but practise not," says Euripides. [2]

"He is an able speaker, and excels at once in Exhortation and Conviction," says Epictetus, "who can *discover to each man the contradiction by which he errs,* and prove clearly to him that *what he would he doth not, and what he would not do that he doth.*" [3]

Whether Epictetus ever read the seventh of Romans or not we cannot tell; but his words here are strangely similar to those of Paul, the great Christian teacher of the Gentiles. It would be difficult to state more concisely and emphatically

[1] Plut. de Adul. et Am., c. 20.
[2] Eurip. Hippol., v. 380.
[3] Epict., l. ii. c. 26.

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the law of indwelling sin than in that sentence of moral contradiction condemning every man, "What he would he doth not, and what he would not do that he doth."

The existence of a schism in the human soul is "not a mere dogma of theology, but *a fact of science.*" In a world where everything else is adjusted internally as to its parts, and externally to its surroundings, the moral character of man manifestly lacks such adjustment. While his bodily and mental powers are mutually adjusted, and in harmony with the physical world, his moral character makes him an anomaly in the order of the Universe. Possessed of faculties suited for the perception of "truth, goodness, and beauty," his character is marred by "error, evil, and deformity."

"*Man,*" says Plato, "*knowing evil to be evil, nevertheless does it.*" [1]

"*Show me a man who is not a slave,*" says Seneca. "One is a slave to lust, another to covetousness, another to ambition, and all to fear." [2]

Jewish and Christian teachers have also borne similar testimony. Moses said of the antediluvians, "God saw that the wickedness of man was great in the earth, and that every imagination of the thought of his heart was only evil continually."

Jeremiah wrote twenty-five centuries ago: "The heart is deceitful above all things, and desperately wicked. Who can know it?"

Jesus Christ, the greatest moral Teacher the world has ever had, said: "Out of the heart proceed evil thoughts, murders, adulteries, fornications, thefts, false witness, blasphemies; these are the things which defile a man." "Every tree is known by its fruit." "A good tree bringeth not forth corrupt fruit, neither doth a corrupt tree bring forth good fruit." "An evil man out of the evil treasure of his heart bringeth forth that which is evil."

[1] Plato, Protag., c. 37. [2] Seneca, Epist. 47.

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Paul the apostle, in a letter written eighteen hundred years ago, makes the following confession: "We ourselves were sometimes foolish, disobedient, deceived, serving divers lusts and pleasures, living in malice and envy, hateful and hating one another."

In another letter written by the same apostle occurs the following indictment of the Gentile world: "Even as they did not like to retain God in their knowledge, God gave them over to a reprobate mind to do those things which are not convenient; being filled with all unrighteousness, fornication, wickedness, covetousness, maliciousness; full of envy, murder, debate, deceit, malignity; whisperers, backbiters, haters of God, despiteful, proud, boasters, inventors of evil things, disobedient to parents, without understanding, covenant breakers, without natural affection, implacable, unmerciful: who, knowing the judgment of God, that they which commit such things are worthy of death, not only do the same, but have pleasure in them that do them."

These searching, solemn sentences have for centuries been read by the devout, whether in Jewish synagogues or Christian churches, as portions of the Word of God. But we do not quote them here because they are inspired. Our argument does not require at this point the support of supernatural Revelation. We simply cite these words as well-known ancient testimony, amply confirmed by history and experience.

II. Physical Evil, or Disorders in External Nature.

From the mournful spectacle of moral evil we turn to glance for a few moments at physical evil.

The existence of extensive suffering in the world, and the reign of death, are obvious facts. Physical good and physical evil are found side by side. On the one hand the ordinances of Nature are evidently designed, on the whole, for good. The light of sun and moon; the warmth of summer; the

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course of the seasons; the growth of vegetation; the beauty and fragrance of flowers; the ripening of fruits; these and a thousand other arrangements in Nature minister benefit to sentient creatures. On the other hand we note the diseases which invade the frame, the storms which convulse the heavens, the lightnings, the earthquakes, the pestilences, which carry destruction. Why does the path of life lead ever to the tomb? Like the heart of man, Nature seems a contradiction. Is it purposely so? Has the physical evil in the world a relation to the moral evil? Is it designed to act as a check upon it, as in human governments physical penalties are employed to arrest unlawful actions? Who shall solve these problems? But were they solved as problems, would that meet the case? Would not suffering and death still continue? Would not storms still darken the heavens, and shake the earth? Would not the grave still swallow up successive generations of mankind? Physical evil operates as a resistless law. Associated with the "law of sin" there is a "law of death," and man needs deliverance as really from the one as from the other.

III. The Inability of Man to Remove Moral and Physical Evil, and to Restore the World.

Natural religion and philosophy have been tested for ages, and have failed to afford the help which man requires.

1. *The failure of Natural religion.*

The office of religion is to "enlighten, console, and regenerate." Natural religion has failed in each of these. It cannot give men the light or knowledge they require. *Natural religion knows little of man, less of God, and nothing of the future.* It cannot console the bereaved with the prospect of reunion; it cannot renew the character and heart of man.

This deficiency in the power of natural religion is of grave practical importance. Natural religion *has no fulcrum by which to lift the world.*

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"Every one who is at all acquainted with the history of man must be convinced that nothing less powerful than *the whole amount of motive derived from the knowledge of an endless existence has ever been found a sufficient antagonist force to the downward and headlong tendencies of appetite and passion.*"[1]

2. *The failure of Philosophy.*

Philosophy, like natural religion, has utterly failed "to enlighten, to console, and to regenerate" mankind. Philosophy—Greek, Roman, mediæval, modern, Indian, Chinese—has built its schools, accumulated its libraries, promulgated its theories, but it has brought no deliverance to the captives of sin and death. The fact does not seem, however, to cause it much concern. It calmly sits in academic dress amid the scene of moral and physical desolation, coining learned phrases and plausible theories, but no helping hand has it ever extended to raise the wounded mortal from the wayside, and bear him to the inn of rest and security. Man's needs are great. They are pressing. His wounds bleed. His soul faints. What can Philosophy do for him? or Science? What can the Chemistries, and the Geologies, and the Astronomies do for the sin-sick soul? Miserable physicians, miserable comforters are ye all! No, ye have failed and must fail to heal the broken heart, the wounded conscience. Ye cannot uproot the love of sin. Ye cannot implant the love of righteousness. Ye cannot stay the ravages of death. Ye cannot still the storm, or silence the thunder, or calm the earthquake, or conquer the grave. Ye cannot draw back the dark impenetrable veil that hides the future. Your guesses at some possible prospect of better things have no power to satisfy the longing, trembling soul of man. He looks at you with his fixed and earnest gaze. He is guilty. He is dying. What have you to say? Only to confess your ignorance, and impotence!

"I am going out of the world," said Socrates, "and you are to continue in it, but which of us has the better part is a secret

[1] Wayland, "Moral Philosophy," c. viii. sec. 3.

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to every one but God." Cicero, when relating various opinions as to immortality, said, "Which of these is true God alone knows, and which is most probable is a very great question." Philosophy, what does it teach us but that man knows nothing of things as they really are. This is its great discovery. It lights its taper, and lifting it up reveals—an immeasurable sphere of darkness! It sounds with its sagacious plumb-line —the depth of human ignorance! It places us with painful effort on a proud eminence in the midst of things, from which it points us to—"rivers flowing from unknown sources to unknown seas!" In vain do we ask from it the What, the Whence, the Whither! Its oracles are dumb; and when, in despair of Truth, Consolation, Holiness, Life, we turn away from the baffled intelligence of MAN to the majestic presence of NATURE, when we stretch forth our hands amid the circling solitude of the measureless Universe, and cry, *Who shall deliver us?* Nature's only answer, if answer it be, is the silence of the eternal stars above us, and beneath us, the voiceless silence of the grave.

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CHAPTER II.

THE EXISTENCE AND EVIDENCE OF REVELATION.

1. THERE is an old book called the Bible, which has been translated into three hundred languages. There is an ancient people dispersed among all nations of the earth called the Jews. There is a religious body called the Christian Church whose members are found in all lands. Both Jews and Christians regard the Bible as the Word of God. These are facts which cannot be denied.

2. The Bible claims to be a Revelation from God. It speaks with Divine authority. It responds to the cry of human need.

3. The method by which this Revelation claims to have been communicated is the inspiration of its writers.

Revelation, according to the testimony of the Bible, and the belief of Jews and Christians, is a supernatural disclosing or discovery of Truth previously unknown; and in substance is that system of Truth which God has communicated by the instrumentality of inspired men, contained in the Holy Scriptures.

4. Josephus, the celebrated Jewish historian, who lived in the first century, thus describes the books composing the Hebrew Scriptures :—

"We have not an innumerable multitude of books among us, disagreeing from and contradicting one another, as the Greeks have, but only twenty-two books, which contain the record of all the past times; which are justly believed to be Divine; and of them five belong to Moses, which contain his laws, and the traditions of the origin of mankind till his death.

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This interval of time was little short of three thousand years; but as to the time from the death of Moses till the reign of Artaxerxes, King of Persia, who reigned after Xerxes, the prophets who were after Moses wrote down what was done in their times in thirteen books. The remaining four books contain hymns to God, and precepts for the conduct of human life. It is true, our history has been written since Artaxerxes very particularly, but hath not been esteemed of the like authority with the former by our forefathers, because there hath not been an exact succession of prophets since that time; and how firmly we have given credit to those books of our own nation is evident by what we do; for during so many ages as have already passed, no one has been so bold as either to add anything to them or take anything from them, or to make any change in them; but it becomes natural to all Jews, immediately and from their very birth, to esteem those books to contain divine doctrines, and to persist in them, and if occasion be, willingly to die for them. For it is no new thing for our captives, many of them in number, and frequently in time, to be seen to endure racks and deaths of all kinds upon the theatres, that they may not be obliged to say one word against our laws, and the records that contain them; whereas there are none at all among the Greeks who would undergo the least harm on that account, no, nor in case all the writings that are among them were to be destroyed." [1]

5. The writings called the New Testament, or the distinctively Christian Scriptures, consist of twenty-seven books, composed on various occasions, in different places, and at different times, by eight authors, who were contemporary with Jesus Christ; viz., Matthew, Mark, Luke, John, Peter, Paul, James, and Jude. These writings include the Gospels, the book of Acts, the Epistles, and the Apocalypse.

The books of the Hebrew Scriptures, which according to Jewish reckoning are twenty-two in number, together with the twenty-seven books of the Christian Scriptures, are forty-nine, or seven times seven books, contained in the volume ordinarily called the Bible.

6. *The Bible, as a Revelation from God, stands on its own independent foundation.*

As a telescope of high power fitted to bring into view innumerable worlds lying beyond the range of the unaided vision *is built on foundation stones sunk in the solid rock*, and

[1] "Contra Apion," Book i. 8.

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so separated by intervening space from surrounding structures that no tremor in these can produce vibrations in the instrument; so the Bible rests on a distinct immovable foundation of its own, divided by a profound chasm from the uncertain products of natural human thought.

We will introduce our brief review of the evidences of revelation by citing one of the many testimonies which infidelity has been constrained to bear to the character of the Bible. The following eloquent sentences are from the pen of the celebrated sceptic, Theodore Parker, of America.

"This collection of books," said Parker, "has taken such hold of the world as no other. The literature of Greece, which goes up like incense from that land of temples and heroic deeds, has not half the influence of this book from a nation despised alike in ancient and modern times. It is read in all the ten thousand pulpits of our land. In all the temples of Christendom is its voice lifted up week by week. The sun never sets on its glowing page. It goes equally to the cottage of the plain man and the palace of the king. It is woven into the literature of the scholar, and colours the talk of the street. It enters men's closets, mingles in all the grief and cheerfulness of life. The Bible attends men in sickness, when the fever of the world is on them. The aching head finds a softer pillow when the Bible lies underneath. The mariner, escaping from shipwreck, seizes it the first of his treasures, and keeps it sacred to God. It blesses us when we are born, gives names to half Christendom, rejoices with us, has sympathy for our mourning, tempers our grief to finer issues. It is the better part of our sermons. It lifts man above himself. Our best of uttered prayers are in its storied speech, wherewith our fathers and the patriarchs prayed. The timid man, about to awake from his dream of life, looks through the glass of Scripture, and his eye grows bright; he does not fear to stand alone, to tread the way unknown and distant, to take the death angel by the hand, and bid farewell to wife and babes and home. Men rest on this their dearest hopes. It tells them of God and of His blessed Son, of earthly duties and heavenly rest.

"Now for such effects there must be an adequate cause. It is no light thing to hold, with an electric chain, a thousand hearts, though but an hour, beating and bounding with such fiery speed: what is it, then, to hold the Christian world, and that for centuries? Are men fed with chaff and husks? The authors we reckon great, whose articulate breath now sways the nation's mind, will soon pass away, giving place to other great men of a season, who in their turn shall follow them to eminence, and then to oblivion. Some thousand famous writers come up in this century,

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to be forgotten in the next. But the silver cord of the Bible is not loosed, nor its golden bowl broken, as Time chronicles his tens of centuries passed by. Fire acts as a refiner of metals: the dross is piled in forgotten heaps, but the pure gold is reserved for use, and is current a thousand years hence as well as to-day. It is only real merit that can long pass for such; tinsel will rust in the storms of life; false weights are soon detected there. It is only a heart can speak to a heart, a mind to a mind, a soul to a soul, wisdom to the wise, and religion to the pious. There must then be in the Bible, mind, heart, and soul, wisdom and religion: were it otherwise, how could millions find it their lawgiver, friend, and prophet? Some of the greatest of human institutions seem built on the Bible: such things will not stand on chaff, but on mountains of rock. What is the secret cause of this wide and deep influence? It must be found in the Bible itself, and must be adequate to the effect."

The Evidences which support the claim of the Bible to be the Word of God are twofold, External and Internal. They are addressed to two distinct faculties in the human mind, the Rational and the Intuitional faculties.

The External evidences appeal to sense and reason, and are sufficient to produce rational conviction, or to confirm faith; but they cannot create faith; they have no life-giving or renovating power.

The Internal evidences appeal both to reason and to the moral sense, to the mind and heart; including especially the heart as "opened." Thus we read in the book of Acts, of Lydia, "whose heart the Lord opened that she attended to the things spoken by Paul." Internal evidences include lower and higher departments, or moral and spiritual evidences.

The difference between external rational, and internal spiritual evidences of Divine Truth, and their respective places and powers, can be clearly seen in the case of Nicodemus. Convinced intellectually by rational evidences of the Divine Mission of Christ, but not spiritually enlightened, converted, or renewed, he came timidly to Christ under cover of the darkness of night, to be further instructed, supposing that such instruction was all that he needed.

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In opening his interview with Christ, Nicodemus expressed his conviction, and that of others, that Christ was a teacher come from God, and showed the rational foundation on which that conviction rested. "Rabbi, we know Thou art a teacher come from God: *for no man can do these miracles that thou doest, except God be with him.*

The reply of Christ is startling:—

"Verily, verily, I say unto thee, *Except a man be born again, he cannot see the kingdom of God.*"

Mental conviction based on external evidence, however valuable, is not saving light. Nicodemus was told that he needed inward spiritual illumination. The Kingdom of God could not be revealed to reason. It could only be seen by the renewed heart. By no process of reasoning proceeding logically from premises to conclusions could he pierce the mystery or grasp the experience of the new life. That new life of heaven could only be entered as the old life of earth is entered, by the avenue of birth. Nicodemus must be born into the kingdom about which he had come to enquire. Only when born into it would he see it.

To the question, "How can these things be?" Jesus answers by a simple yet glorious declaration of the Gospel. In its startling nakedness He presents the Cross, and declares Himself to be the revelation and gift of the redeeming love of God to mankind. The Sun of Truth thus simply rose from its veil of clouds before the wondering eyes of the inquirer. No outward miracle was added. No argument was used. Light shone. "The testimony of God" in its strange celestial loveliness was unveiled. Like an angel there it stood, and the soul saw it! A moral miracle was wrought. The mental eyes were opened. Thus *physical miracles lead to moral miracles*; miracles in the outer sphere to miracles in the heart. The evidences addressed to natural reason pave the way for those addressed to spiritual intuition. Both are needed, but of the two the latter are immeasurably the loftier, and the

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more practically potent. Rational evidences at best are only like *starlight*; they are faintly shining luminaries which direct the path of the wanderer on the wide and stormy seas, but have no power to quicken the dormant frozen energies of nature into life; spiritual intuitional evidences, on the other hand, are like the *sunlight* which transforms by its resistless strength the barrenness of winter into the bloom and beauty of the spring.

It would not suit with the scope of this work that we should attempt to present the Evidences of Revelation with anything approaching to fulness. We can do no more than briefly indicate the main branches of evidence, grouping them according to their historic principle of connection.

I. External Evidences.

1. *The civil history of the Jews.*

For four thousand years this remarkable people has existed as a separate nation. Sprung from one common father—a man distinguished by the purity and loftiness of his character—the Jews constitute an ancient brotherhood connected by ties of blood relationship. Early oppressed and enslaved in Egypt, they were delivered by the instrumentality of Moses, and under the leadership of his successor Joshua became the conquerors of the land of Canaan. After prolonged conflicts with the native tribes, they rose under the government of their own kings to the rank of a powerful and prosperous people. Divided subsequently by internal dissensions, they were overthrown by Assyrian and Babylonish conquerors, and transplanted into foreign lands. Partially restored to Palestine under the rule of the Persians, they subsequently asserted their independence in a noble struggle against the cruel oppression of the Syro-Greek tyrant, Antiochus Epiphanes. Under the rule of the Herods they attained to temporary splendour as a dependent kingdom of Rome, and finally in a

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tragic warfare with the might of the Cæsars were overthrown, crushed, and scattered throughout the world. Through the long centuries which have followed, though often cruelly oppressed and persecuted by the peoples among whom they have been dispersed, the Jews have maintained their national character, their ancient institutions, and their hopes.

2. *The religious history of the Jews.*

From the beginning of their existence the Jews have been monotheists. The Egyptians were polytheists, as were the Canaanites and other nations of antiquity. Such in later times also were the Assyrians, the Babylonians, the Greeks, and the Romans. In contrast with these the Jews have for ages adhered as a nation to the worship of the One Almighty Creator of heaven and earth. In every stage of their varied experience, whether as dwelling in their own land, or as scattered among strangers in other countries, they have maintained their faith in the Unity of God, and have regarded themselves as in a special sense His people. Their temporal as well as their spiritual government were conducted on the principle that God Himself was their legislator and sovereign. Their laws are distinguished from those of all the nations of antiquity by the righteousness of their character, and the unsparing sternness of their purity. To love God with all the heart, and mind, and strength, and to love one's neighbour as oneself, is the summary of the moral teachings of the "law and the prophets."

While distinguished from other nations by their monotheism, and by the possession of the Mosaic law, the Jews as a people have been guilty of the most obstinate and long continued rebellion against the moral principles of their religion. Under Moses, the Judges, and the Kings, they openly apostatized from the worship and service of God, and subsequently persecuted and slew the prophets who rebuked their impiety.

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The guardians of a law they never kept, and the persecutors of the prophets who interpreted and exemplified the spirit of that law, the Jews have demonstrated that the teachings of the law and the inspiration of the prophets proceeded from a higher source than that which produced the corrupt and polluted stream of their national character. The crushing and terrible judgments which have overtaken them from age to age have marked the displeasure of Heaven against their sins, and sealed the Divine authority of the *precepts* they transgressed, and of the *prophecies* which foretold their woes.

3. *The relation of Judaism to Christianity.*

The relation of the Jewish and Christian religions is that of *foundation* and *superstructure.*

"So divine," says Pascal, "is our religion that another religion equally of divine origin forms only its foundation. The Pagan religion is without any foundation. The Mohammedan religion is founded on the Alcoran, and on Mohammed. But was he who ought to have been the object of the whole world's expectation ever prophesied of? What is there to distinguish him from any other man pretending to be a prophet? What miracles did he perform? What mysteries did he teach? Where, by his own records even, is his morality, or the good tendency of his system? Who bears testimony to Mohammed? Himself. But testimony is utterly worthless if unsupported. Mohammed's proofs ought to be very powerful as they rest upon no support but their own. What does he then declare? That he must be believed. Christ desired that His own testimony, if unsupported, should be accounted nothing."

The Jewish Scriptures to which Christ appealed consisted of the Law and the Prophets. Both bore witness to Him as the Messiah. Both prepared His way. Both were fulfilled by Him.

The moral Law revealed the disease for which He brought the remedy. Its precepts were designed to convince of sin. On the other hand, the ceremonial law was suited to typify the remedy for sin. It contained a shadow of the "good things" of the Gospel. It pictured the way of salvation.

What the ceremonial law obscurely typified, the prophets

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more plainly predicted. Both pointed to the coming Messiah. The daily sacrifices of the one, and the successive utterances of the other, pointed to "the Lamb of God who taketh away the sin of the world."

The fulfilment of the *moral* law, the *ceremonial* law, and the *prophets*, in the character and work of Christ, is a threefold cord of evidence which cannot be broken. He, and He alone, perfectly fulfilled the precepts of the Moral law. He, and He alone, fulfilled the types of the Ceremonial law. He, and He alone, fulfilled the predictions of the Prophets. By His fulfilment of the Moral law He became a law. He translated its written precepts into living deeds. With His death the Ceremonial system came to an end. And prophecy, since His advent and the teachings of His apostles, has been silent.

Volumes would be required to show with completeness this triple fulfilment of law and prophecy in Christ. The convergence of these several independent lines in one focus is all we can indicate here. Viewed singly the testimony of Prophecy is doubtless the most important. Its strength is invincible.

"Had a single person," says Pascal, "composed a series of predictions relating to Jesus Christ, both as to the time and manner of His coming, and had His appearance been conformable to those prophecies, it would have been an inconceivable wonder. But we have, in Scripture, actually, much more than this. We find a succession of persons, during a period of four thousand years, one after the other, predicting constantly, and without variation or discrepancy, this one and the same event. It is a fact announced by an entire people subsisting during this mighty period, for the purpose of embodying their faith in its reality, and never once diverted from their testimony by any menaces or persecutions to which it exposed them."

Christ fulfilled what the prophets foretold by appearing when and where He did; by His life, His character, His labours, His works, His testimony, His sufferings, His rejection, and His death, burial, resurrection and ascension; by the advent of His Spirit, and the founding of His Church.

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The rejection of the Jews and the call of the Gentiles were both foretold in the Jewish Scriptures. Marvellous fact! That the Jews should foretell their own rejection, and the call of uncircumcised Gentiles into the Kingdom of God.

4. *The Miracles of Christ and His apostles.*

That the apostles bore testimony to the numerous miracles performed by Christ, and above all to the miraculous fact of His resurrection, is admitted by all. And their testimony is of equal value with that of any other ancient testimony to any facts whatever. If the narratives or histories the apostles have written are not to be trusted, there can be no histories whatever of a trustworthy character. They were eye-witnesses, and their intelligence and honesty were amply demonstrated.

"The sufferings, persecutions, and immeasurable labours and self-denial of the first propagators of Christianity would never have been encountered for such a miraculous story unless they had been fully persuaded of its truth; and that in that story, as they would not deceive others, so they could not be themselves deceived." [1]

5. *The Prophecies in the New Testament.*

These are numerous and relate to such matters as the destruction of Jerusalem, the dispersion of the Jews throughout the world, and their continued moral blindness; the growth and history of the Christian Church, its divisions, and the grievous apostasy from primitive faith and practice in which so large a portion of it has been involved; the rise and reign of the Politico-ecclesiastic Papal power; the cruel and long continued persecutions of Christ's faithful witnesses; the Anti-Papal religious and revolutionary movements of modern times; the universal proclamation of the Gospel, and the gathering into the Kingdom of God of a multitude that no man can number of all nations, tribes, and tongues. The fulfilment of these prophecies is a standing and perpetual miracle.

[1] Henry Rogers, "Preface to Lord Lyttelton on the Conversion and Apostleship of St. Paul."

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II. Internal Evidences.

There are *moral*, as appealing to the conscience, and include the general character of the Bible, the morality of the law and of the gospel, the character of Christ and of His apostles, and the character and lives of early Christians.

They are also *spiritual* as suited to the illuminated mind and spiritual perceptions of those who are renewed in their nature, and "taught of God." Such spiritual evidences include the wisdom and harmony of revealed truth; the order which reigns in the different dispensations of Providence; the analogies which connect the law and the gospel, the natural and the revealed; and above all the profound adaptation of the gospel to meet the various moral and spiritual requirements of men; an adaptation demonstrated by the experience of innumerable persons of every character and clime during the last nineteen centuries. Apart from the perception of particular features of divineness in revelation, there is in the renewed heart a sense of the holiness, sweetness, majesty, and power of the Scriptures which no language can express. And this sense grows with the advance of the Christian student in knowledge and experience.

1. *The Superiority of the Religion of the Bible to all other religions in the world.*

Every advance in our knowledge of the religions of the world only makes this superiority increasingly evident.

"I find," says Pascal, "a multitude of religious systems prevailing in various lands, and throughout all periods of time. But they neither possess a *morality* which satisfies my conscience, nor offer *proof* to convince my judgment; and I should therefore equally have rejected the religions of Mohammed and of China, of the ancient Romans and of the Egyptians, for this sole reason, that the one carrying no stronger mark of truth than the other, and none exhibiting any preponderating evidence of authority, reason is compelled to refuse submission to them all alike." "No religion has permanently remained upon the earth but the Christian religion. No religion but the Christian religion can render a man holy and happy. It is the only religion which can satisfy the heart, the con-

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science, and the intellect; the only religion which can sanctify the life, or regenerate society."

2. *The Superiority of the Christian religion to Judaism.*

The Christian religion is not the outcome or development of Jewish or Rabbinic thought. So far from harmonizing with Judaism Christianity from the first opposed it, and found in Judaism its most bitter persecutor and irreconcilable foe.

The contrast between the characteristic teachings of the Gospel of Christ, and the doctrines common among the Jews at the period when the Christian religion arose, can be plainly seen, by comparing the writings of Philo, and also the Jewish Mishna and Gemara, with the New Testament.

Philo was born about twenty years before the commencement of the Christian era. He was a Jew of Alexandria, descended from a noble and sacerdotal family, and was noted for his learning and eloquence. He appears to have been a Pharisee, and was deeply versed, not only in the Old Testament Scriptures, but also in Grecian Philosophy. He lived to an advanced age, so that he was a contemporary of Christ and the apostles, and has left behind him copious treatises on the contents of the Jewish Scriptures. These relate to such subjects as the creation of the world; the sacrifices of Cain and Abel; the unchangeableness of God; the history of Noah; the confusion of languages; the immigration of Abraham; on dreams sent from God; on Joseph, or the life of a man occupied with the affairs of State; on the life of Moses; the ten commandments; circumcision; the monarchy; sacrifices; on justice, courage, humanity, repentance, rewards and punishments; on the system of the world, etc. While containing many fanciful mystical interpretations of the Old Testament Scriptures, these treatises abound with just sentiments expressed in a clear and forcible manner. But the great distinctive conceptions of the New Testament are not to be found in the writings of Philo. The Messiah, the Spirit, the Church, the accomplished Atonement, the

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realized Resurrection, the union of Jew and Gentile in one new body, the triumphs of the Gospel, are all absent from these contemporaneous Jewish disquisitions! The Old Testament is treated in much the same fashion as in the writings of the philosophical Jew Maimonides, who lived twelve centuries later, and endeavoured to demonstrate the reasonableness of the laws of Moses. There is no recognition of the insufficiency of the Jewish law for the deliverance of man from sin and ruin; no conception of the true typical import of its ceremonial precepts; no knowledge of the fulfilment of the law and the prophets in the person and work of Jesus Christ. The Kingdom of God of the New Testament is wholly absent from these Jewish writings. The same thing may be said of the Mishna and Gemara. The body of Jewish traditions collected in the second century is called the Mishna (or repetition). Various comments were added to it by later doctors, under the name of the Gemara (or completion), and the two works are together called the Talmud. The traditions contained in the Mishna arose about 300 years before Christ. The Talmud contains many critical and grammatical comments on the text of Scripture, but the glorious gospel of the New Testament is nowhere to be found in its bulky compilations. Tradition, ritual, the lifeless letter, shallow externalism, narrow exclusivism, mental triviality, moral bondage, these are present in exuberant and abnormal development; the attention is strained, the memory loaded, the mind wearied with infinite details of a hollow and dead ceremonialism; a ceremonialism transcending in the burdensome minutiæ of its requirements every other the world has ever known; but the faith, the hope, the love, the largeness, the freedom, the simplicity, the sublimity of the Gospel, are wholly excluded from these narrow and gloomy chambers of Jewish thought.

3. *The Superiority of the Christian Religion to Philosophy.* Christianity forms a striking contrast with philosophy in

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"its earnestness, method, and aim"; in its "freedom from all attempts at political legislation"; in its comprehensiveness as "the religion of humanity"; in the purity and loftiness of its moral principles and precepts; in its adaptation to the lowest as well as the highest strata of society; and in its possession of "a moral and spiritual power adequate to effect the regeneration of mankind."[1]

Philosophy is impotent in the presence of sin. The gospel of Christ is mighty to deliver from sin. Philosophy is a sea of ever-fluctuating speculations. Christianity is a stable rock standing unmoved and immovable amid the waves. The one is a barren field, the other a fruitful garden. The one exercises the head, the other changes, fills, and satisfies the heart. The one pursues a devious path, descending to the precipice of despair and destruction; the other patiently leads upward in the sublime stairway of progressive spiritual attainments, bright with the hope of immortality. The one, in spite of its lofty pretensions, is but the thought or mind of man without God; the other, in spite of its lowly garb, is the thought, the mind, and heart of God with man!

4. *The Character of Christ.*

It has been admirably said that while "Plato in his speculations conceived of the contemplation of *the abstract idea of the good* as one which might elevate to higher holiness the most advanced students of philosophy, *Christianity has unfolded this divine idea of goodness in the person of Jesus Christ* in a form which is capable of acting on every member of the human family. What the philosopher could only dream of in his study as the privilege of the select few, Jesus Christ has manifested in His life as the property of all. Philosophy, in groping after truth, stumbled on speculations which Christianity has realized."[2]

[1] Row, "Bampton Lectures," 1877, pp. 141–161.
[2] *Ibid.*, p. 174.

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As all colours are blended in Light, so all the elements of moral perfection are united in the character of Jesus Christ. The incomparable description of charity or love in the 13th chapter of 1st Corinthians *decomposes* the pure ray of Love into its component colours, while the character of Christ *recomposes* all these component colours into the bright beam of their native living unity.

Jesus Christ is the law of love exhibited in actual life. No one virtue predominated in His perfection. In Him every virtue was harmoniously developed. Moses was the meekest of men, David the bravest, Solomon the wisest, Peter the boldest, John the most loving, Paul the most devoted; but Jesus Christ not only excelled all these, but united their perfections. In Him the most opposite perfections were conjoined, meekness and majesty, exaltation and condescension, justice and grace, glory and humility, obedience and dominion, sovereignty and resignation, self-sufficiency and trust, worthiness of good and patience under the suffering of evil.[1]

The blending of the elements of wisdom, power, and love in Jesus Christ is truly incomparable and divine. "That hand uplifted while the lips utter an axiom of virtue symbolises at once *perfect Intelligence, absolute Goodness, and irresistible Power.*" "Antiquity had not conceived," says Isaac Taylor, "a worker of miracles in whose course of life and behaviour the working of miracles showed itself as a secondary and incidental element, and in whose character Love was of the substance, while the supernatural faculty was the adjunct only."[2]

"This threefold cord," says Professor Birks, "*of superhuman Power, superhuman Knowledge, and superhuman Goodness,* has its strands so wonderfully and mysteriously interwoven,

[1] See Jonathan Edwards' "Discourse on the Excellency of Christ." Works, vol. i. 680.

[2] "Restoration of Belief," p. 220.

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that no art of man, though they may be distinguished in thought, can practically sunder them from each other."[1]

Whence has come "the conception of such a character as that of Christ, which if a fictitious portrait has fixed the gaze and influenced the destinies of the world more than the actual history of the greatest of the sons of men"? And whence has come "its dramatic exhibition in so singular a series of moral paintings as the parables and miracles present to us; the exquisite simplicity of the narrative bearing all the marks of its being history and not fiction"?[2]

Even infidels have been compelled to ask themselves the question whether the book which portrays this character can be human in its origin.

"Is a book," says Rousseau, "at once so sublime and simple the work of man? Can it be that He whose history it relates was Himself a mere man? Is this the tone of an enthusiast, or of a mere sectary? What sweetness! what purity of manners! what touching grace in His instructions! what elevation in His maxims! what profound wisdom in His discourses! what presence of mind, what acuteness, what justness in His replies! what empire over His passions! Where is the man, where is the sage, who knew in this way how to act, suffer, and die? When Plato describes his imaginary good man, covered with the opprobrium of crime, yet meriting the rewards of virtue, he paints, trait by trait, Jesus Christ. . . . What prejudice, blindness, or bad faith does it require to compare the son of Sophroniscus with the Son of Mary! What distance between the two! Socrates dies without pain, without ignominy; he sustains his character easily to the end. If he had not honoured such a life with a death, we should have thought him a sophist. They say Socrates invented ethics; but others practised morality before he taught it. Aristides was just before Socrates described justice; Leonidas died for his country before Socrates taught the duty of patriotism. Sparta was temperate before Socrates praised sobriety; Greece abounded in virtuous men before he defined what virtue is. But Jesus, where did He find *the lofty morality of which He alone gave both the lesson and the example?* From the midst of a furious fanaticism proceeds the purest wisdom; among the vilest of the people appears the

[1] "Supernatural Revelation," p. 52.

[2] Henry Rogers, "Preface to Lord Lyttelton on the Conversion and Apostleship of St. Paul."

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most heroic and virtuous simplicity. The death of Socrates, tranquilly philosophizing among his friends, is the sweetest one could desire; that of Jesus, expiring amid torments, abused, ridiculed, cursed by a whole people, is the most horrible which one could fear. . . . Yes; if Socrates lives and dies like a philosopher, Jesus lives and dies like a God!"

As the edges of dark clouds reflect at sunset the splendour of the sinking luminary, so the woes encompassing the life and death of Jesus were glorified by the presence of His moral loveliness. In Him purity and pity, righteousness and grace, were enshrined in shame and sorrow without compare. For the griefs and insults which He endured were undeserved, and were borne, not only from the purest love, but in the meekest patience and grace.

There was inexpressible majesty in His humility, wealth in His poverty, and in His weakness all-victorious strength! No crown ever worn by earthly monarch can compare for a moment with His crown of thorns; no earthly throne with His rude and rugged Cross. His passion transformed the instrument of the lowest shame into the symbol of the loftiest glory; it has made the Cross to become the standard of victory, the object of faith, the image of love, the inspiration of hope, and the theme of perpetual praise.

The character of Christ reflects moral glory upon the Book of which it is the central feature. The Bible stands or falls with Jesus Christ. He is the pillar and sun of its system. Prophets and apostles were only His ministers and adjuncts. "The testimony of Jesus is the spirit of prophecy." Scripture is void and meaningless apart from Christ. It was made to witness to Him. It fits Him, and clings to Him as His garment, His seamless robe "woven from the top throughout." Through its folds we see and feel His form. His truth and holiness imply and involve the truth and holiness of the Scripture which reveals Him, and bears the impress of His character, and the seal of His authority.

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5. *The Conversion and Character of Paul the Apostle.*

A large part of the New Testament is occupied with the history and writings of the Apostle Paul. The fidelity of the record is strikingly confirmed by "the recondite coincidences and conformities between the Acts and the Epistles," whose links of connection and harmony are "too deep and too oblique to answer the purposes of fraud; too numerous, intricate, and minute, to be the result of accident."

The life and character of Paul afford a strong and simple argument for the truth of Christianity.

Paul had nothing to gain by being a Christian, but everything to lose. No desire of wealth, or fame, or power can explain his conduct. His confession of Christ brought upon him the most cruel and relentless persecutions from both Jews and Gentiles. The spirit in which he met and sustained these persecutions was above all praise. His charity and sincerity were transparent. He lived a life of ceaseless toil and poverty, supporting himself by manual labour. He died as a martyr for the faith which for long years he had consistently professed.

Paul the Apostle was evidently no impostor; nor, on the other hand, was he a mere *enthusiast*, a reed shaken with the wind, a man of unbalanced mind, swayed by wild fancies, and fallacies of the imagination, the sport of passion, or the prey of insanity. He was pre-eminently rational. His burning zeal was tempered with prudence, and sweetened with charity and gentleness. Firm in matters of principle, in things of secondary importance he was pliant, becoming "all things to all men" that he might secure their highest interests. His holiness was not characterised by gloomy separateness or stern austerity, but by "the simplicity of a good life." No trace of pride or vain-glory marred his spirit. He owned himself to be the chief of sinners, and gave all

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the glory of the change which had been wrought in his character to the grace of God. The morality he taught and exemplified was that of the 13th of 1st Corinthians, the morality of pure, unselfish, universal love. This love he exalts above all other gifts and graces. What sobriety he taught in his pastoral epistles, exhorting the aged men to be sober, grave, temperate, and the young men to be sober-minded; urging Titus to be "a pattern of good works," characterised in his teachings by "uncorruptness, gravity, sincerity, sound speech that cannot be condemned, that he that is of the contrary part may be ashamed, having no evil thing to say of you"! Are these the words of a mere enthusiast? How nobly reasonable was Paul in the presence of his judges! When rashly charged by Festus with being beside himself, how calm, how firm, how deferential is his reply: "I am not mad, most noble Festus, but speak forth the words of truth and soberness"! With what wisdom and boldness does he appeal to the knowledge possessed by Agrippa of the truth of the historic facts to which he testified, and of their prediction in prophecy! How grandly he brings in his judge as his witness! "The king knoweth of these things, before whom I speak freely, for I am persuaded that none of these things are hidden from him, for this thing was not done in a corner!" How boldly he appeals to the convictions of his judge! "King Agrippa, believest thou the prophets? I know that thou believest!" What courage, what sincerity, what charity shine in the memorable words in which he answers Agrippa's "Almost thou persuadest me to be a Christian!"—"I would to God that not thou only, but also all that hear me this day were both almost and altogether such as I am, except these bonds"!

Yes, Paul was evidently sincere and sensible; reason and affection ruled his soul; but *had he been deceived* by the fraud of others? and can "all that he said of himself be imputed to the power of that deceit"? This question has been

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admirably answered by Lyttelton in his famous treatise on the Conversion of St. Paul.

"It was morally impossible," says Lyttelton, "for the disciples of Christ to conceive such a thought as that of turning His persecutor into an apostle, and to do this by fraud in the very instant of his greatest fury against them and their Lord. But could they have been so extravagant as to conceive such a thought, it was physically impossible for them to execute it in the manner in which we find his conversion to have been effected. Could they produce a light in the air which at midday was brighter than that of the sun? Could they make Saul hear words from out of that light which were not heard by the rest of the company? Could they make him blind for three days after that vision, and then make scales fall off from his eyes, and restore him to his sight by a word? Beyond dispute no fraud could do those things; but much less still could the fraud of others produce those miracles subsequent to his conversion in which he was not passive, but active; which he did himself, and appeals to in his Epistles as proofs of his Divine mission. From which it follows that *what he related to have been the cause of his conversion, and to have happened in consequence of it, did all really happen, and therefore the Christian religion is a Divine revelation.*"

6. *The Evidence of Experience.*

1. The fact of spiritual illumination.

Every real Christian has a witness of the truth and divinity of the religion of Jesus in his own heart. His experience corresponds to some extent with that of Paul in the matter of spiritual illumination. God has shined in his heart! He has seen Christ in His glory, not with the eyes of his body, but with those of his mind. He sees Him thus from day to day as he walks "in the Spirit." He is possessed of "a special faculty of insight which apprehends Christ." He sees the glory of God in the face or person and work of Jesus. The eyes of his understanding have been enlightened (Eph. i. 18). His heart has been opened (Acts xvi. 14). The Scriptures have been opened to him (Luke xxiv. 32, 45). He has tasted that the Lord is gracious (1 Pet. ii. 3). He has the witness in himself (1 John v. 10). His experience is expressed in the words, "Eye hath not seen, nor ear heard, neither have entered into the heart of

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man the things which God has prepared for them that love Him. *But God hath revealed them unto us by His Spirit.* . . . We have received not the spirit of the world, but the Spirit which is of God, that we might know the things which are freely given to us of God . . . but the natural man receiveth not the things of the Spirit of God, for they are foolishness unto him: neither can he know them, because they are *spiritually discerned*" (1 Cor. ii. 9–14). The inward illumination of the true Christian places religion for him on a basis altogether distinct from that of reason. He apprehends it directly by a new and supernatural faculty. He knows it by a Divine intuition. He exercises in its apprehension what has been called the "Christian consciousness." This consciousness does not take the place of revelation, but interprets and confirms it.

2. The fact of moral renovation.

Every true Christian is a new creature. A triple change has been wrought in him, affecting thought, feeling and will. He sees differently, feels differently, wills differently from what he once did, and from the carnal world around. He believes in Jesus Christ, loves Him, follows Him. He lives in God's presence. He rejoices in God's salvation. He brings forth the fruits of righteousness. He grows in grace as he abides in Christ. All his moral and spiritual experiences confirm the teachings of Scripture.

3. The outward historical proof.

Christian experience attests its divinity both inwardly and outwardly: inwardly to the individual, outwardly to the world; inwardly by consciousness, outwardly by character and consistency. For eighteen hundred years it has withstood the antagonism of the world. It has vanquished the world's opposition, and even changed to a great extent the character of its opponent. The strength of Christian conviction manifested in the few, the poor, the feeble, has been measured against the might of that majestic empire which

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of old subdued the nations, and trod them beneath its feet. The Christian martyrs conquered. "No intensity of torture had any means of affecting what was a mental conviction, and the sovereign thought in which they lived was their adequate support and consolation in their death. . . . They faced the implements of torture as the soldier takes his place before the enemy's battery . . . and when Rome at last found she had to deal with a host of Scævolas, then the proudest of earthly sovereignties, arrayed in the completeness of her material resources, humbled herself before a power which was founded on a mere sense of the unseen."[1]

But the Christian Church has not only conquered the world, she has renewed it. "A new system of ideas and new forces" have been introduced into the world by Christianity. The "Gesta Christi"—the achievements of Christ, are eloquent in their testimony to Him. In living for Him, His followers "have lived for the human race." The proofs lie all around us in the history of Christian civilization. Christianity has "diminished unnatural vices; taught purity; put an end to exposure of children; founded charities and taught more equitable distribution of wealth; checked licentious and cruel sports, and caused humane legislation; mitigated and undermined slavery and serfdom; and elevated woman and marriage."[2] Truly the Gesta Christi have been Gesta Dei. The practical fruits of Christianity have proved and still prove it to be Divine.

In conclusion, the *combination* of all these evidences, external and internal, to the truth and reality of revelation, is the central and most commanding feature of their strength. "The criterion by which, as Lord Bacon says, a true theory is tested is the symmetrical and mutually sustaining harmony of its various parts, where, as in the stones of the arch, each

[1] Newman, "Grammar of Assent," p. 477.
[2] "Gesta Christi," Brace, c. x.

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contributes to the stability of the whole."[1] The proof of Revelation is *cumulative.* Each separate proof is conclusive in itself, while the combination of their testimonies imparts the highest harmony and strength to the complex structure of the Evidences of Revelation—evidences "too various for enumeration, too personal and deep for words, too powerful and concurrent for refutation."

And now what more shall we say? We have scarcely begun to set forth the evidences which sustain Revelation, when we are compelled to terminate. Countless volumes have been written on this theme without exhausting it, and witnesses to the Bible still multiply. The mighty Past is speaking. God is bringing forth its testimony. Egypt, Assyria, Babylon, have broken the silence of ages. The mouldering monuments, the buried cities, the sandy deserts, the sculptured rocks have found a voice. Sinai and Petra, Horeb and Hermon echo the sacred oracles. Memphis and Tyre, Tadmor and Nineveh, have risen from their graves. The painted papyrus, the pictured walls, the stony tablets, the faded palimpsests, the rusted medals and coins bring forth their testimony. The ruins, the rivers, the mountains and the seas cry out, "THY WORD IS TRUTH." And the living witness as well as the dead. The Samaritan still lingers at Sychar; the Jew still wanders in every land. The Church of Christ still lives, and spreads throughout the world. The gospel still regenerates. The promised Spirit still sanctifies, and witnesses in Christian hearts. In a word history and experience confirm the Scriptures, and assure us that through the prophets of the Old Testament and the apostles of the New, and above all through His Son, God Himself has spoken to our race; and that the word which He has spoken liveth and abideth for ever.

[1] Rogers, "Introd. to Lyttelton's St. Paul," p. 70.

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PART III.

THE CONNECTION OF THE NATURAL AND REVEALED;

OR,

CREATION CENTRED IN CHRIST.

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TESTIMONY OF SCRIPTURE.

IN the previous chapters, which are intended to introduce the main subject of the present work, we have endeavoured to set forth briefly the leading evidences for the conclusion that Nature is the work of God, and Scripture His Word. We now turn to the question of *the relation* existing between the two, or more broadly speaking the connection of the Natural and the Revealed.

The conclusion which we have sought to establish that Nature and Scripture are both from God, not only involves the further conclusion that they are mutually connected, but indicates to some extent the probable character of their connection. Nature and Revelation are as we have seen two books by the same author, two parts of one system. *As two books by the same author*, they may be expected to bear the stamp or impress of the same mind. *As two parts of one system*, the scheme of things exhibited in Nature, and that set forth in Revelation must be linked together by mutual adjustments, and probably in a variety of ways. And the superiority of the moral and spiritual to the physical and material, points to the conclusion that the system of Nature is subservient to the system made known by Revelation; that the lower is centred in the higher, rather than the higher in the lower; that the Natural is centred in the Revealed, or in other words that *Creation is centred in Christ.*

To investigate the relation between the Natural and Revealed is the object of the present work. But here it is necessary to guard at the outset against a fundamental mis-

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conception as to our method and aim. In attempting to trace the connection between the Natural and Revealed, we seek and expect *to confirm* the teachings of Revelation, but *we have no intention or desire to build Faith on Reason.* Science and philosophy are not the foundations of the faith of Christians. Their faith rests directly on the "testimony" and "power" of the living God. (1 Cor. ii. 1, 4.) But though natural knowledge and human reason are not the basis of faith, they may serve to confirm, and even to enlarge divinely given faith. "We must mark the difference," says Dr. John Duncan, "between minds wishing to *add to their faith knowledge*, and minds wishing *to drag all faith to the bar of knowledge*; the difference between wishing to *found* faith upon philosophy, and to *deepen* faith by philosophy."[1] "Philosophy," he strikingly adds, "was born a pagan, but she may become Christian, and should be christened 'Mary.' She may be proud to sit at Jesus' feet."

It is the more important to bring forward the witness of Nature to Revelation in the present day, because the testimony of Nature is misrepresented by many, and made to appear opposed to Revelation. There is a "Science falsely so called," which is opposed to Revelation, but this must be distinguished from true science. "There is no small difference," says Bacon, "between the idols of the human mind, and the ideas of the Divine mind—that is to say between certain idle dogmas, and the real stamp and impression of created objects as they are found in Nature."[2] As far as Science is knowledge, and Philosophy is wisdom, revealed truth has nothing to fear from either the one or the other. Truth can never be the antagonist of truth, though the harmonization of truth with truth may at times be difficult, or even with our present knowledge, impossible. Wherever it exists the apparent opposition of truth to truth

[1] Dr. John Duncan, "Colloquia Peripatetica," p. 20.
[2] Bacon, "Novum Organum," xxiii.

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must arise from a defect in the knowledge or skill of the observer, and be capable of resolution with increased knowledge, and superior power of insight.

We commence our examination of the Connection of the Natural and Revealed by placing boldly in the forefront *the testimony of the Word of God as to the relation of Creation to Christ*, giving that testimony as far as possible in the words of Scripture.

TESTIMONY OF SCRIPTURE AS TO THE RELATION OF CREATION TO CHRIST.

Jesus Christ was the Word.

"In the beginning was THE WORD, and the Word was WITH GOD, and the Word WAS GOD."[1] . . "That Eternal Life which was with the Father, and was manifested to us."[2] . . "THE ONLY BEGOTTEN SON which is in the bosom of the Father."[3] . . "THE IMAGE OF THE INVISIBLE GOD."[4] . . "The brightness of His glory, and the express image of His person."[5] . . Even Jesus Christ who said, "Before Abraham was, I AM,"[6] . . who was from the beginning "IN THE FORM OF GOD,"[7] . . sharing divine "glory" with the Father "before the world was."[8]

He created all things.

"ALL THINGS WERE MADE BY HIM" (δι' αὐτοῦ, through Him) "and without Him was not anything made that was made;"[9] . . "for BY HIM WERE ALL THINGS CREATED THAT ARE IN HEAVEN AND THAT ARE IN EARTH, whether they be thrones, or dominions, or principalities, or powers, all things were created by Him,"[10] . . of whom it is written, "Thou, Lord, in the beginning hast laid the foundations of the earth, and the heavens are the work of Thine hand,"[11] . . for "There is but one God, the Father, OF WHOM ARE ALL THINGS," . . "and one Lord Jesus Christ, BY WHOM ARE ALL THINGS,"[12] therefore the Scripture speaks of "GOD WHO CREATED ALL THINGS BY JESUS CHRIST,"[13] and declares that by His instrumentality God "made the worlds."[14]

As the Agent of God the Father.

[1] John i. 1. [2] 1 John i. 2. [3] John i. 18. [4] Col. i. 15.
[5] Heb. i. 3. [6] John viii. 58. [7] Phil. ii. 6. [8] John xvii. 5.
[9] John i. 3. [10] Col. i. 16. [11] Heb. i. 10. [12] 1 Cor. viii. 6.
[13] Eph. iii. 9. [14] Heb. i. 2.

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He upholds and unites all things.

He sustains continually the worlds He created, "UPHOLDING ALL THINGS by the word of His power."[1] . . . and "IN HIM ALL THINGS CONSIST,"[2] or stand together as a united systematic whole (*τὰ πάντα ἐν αὐτῷ συνέστηκεν*).

All things were made for Him.

"All things" were created "FOR HIM."[3] . . He is "the Heir"[4] of "all things,"[5] . . for "the Father loveth the Son, and hath given all things into His hand;"[6] . . as the Son Himself said, "All things that the Father hath are Mine,"[7] . . and again, "Thine are Mine."[8]

In love and mercy He became man.

To redeem the world "HE EMPTIED HIMSELF"[9] (*ἑαυτὸν ἐκένωσεν*) of "THE FORM OF GOD," and took "THE FORM OF A SERVANT,"[10] and "was made in the likeness of men,"[11] . . assuming "the seed of Abraham"[12] . . and of David,[13] . . being born of a virgin,[14] . . and laid as an infant "in a manger,"[15] . . for "THE WORD BECAME FLESH AND DWELT AMONG US, full of grace and truth,"[16] . . as "EMMANUEL, which being interpreted is, GOD WITH US."[17] . . Thus sent by the Father He "came down from heaven,"[18] . . came "from above,"[19] . . "came into the world to save sinners,"[20] . . and was called "JESUS," which means Jehovah the Saviour, for He "shall save His people from their sins."[21] . . "He was in the world, and the world was made by Him, and the world knew Him not,"[22] . . "He came to His own and His own received Him not,"[23] . . He "was despised of men," "a man of sorrows and acquainted with grief,"[24] . . for in His "grace" being "rich, He became poor, that we through His poverty might be rich,"[25] . . "and being found in fashion as a man,"[26] "holy,"[27] yet "in the likeness of sinful flesh,"[28] "HE HUMBLED HIMSELF AND BECAME OBEDIENT UNTO DEATH, EVEN THE DEATH OF THE CROSS."[29]

And died for men.

God raised Him from the dead and highly exalted Him.

"WHOM GOD HATH RAISED UP, having loosed the pains of death; because it was not possible that He should be holden of it."[30] . . God raised His Son from the dead "according to the working of His mighty power"[31] . . and "HATH HIGHLY EXALTED HIM"[32] . .

[1] Heb. i. 3. [2] Col. i. 17. [3] Col. i. 16. [4] Matt. xxi. 38.
[5] John xiii. 3. [6] John iii. 35. [7] John xvi. 15. [8] John xvii. 10.
[9] Phil. ii. 7. [10] Phil. ii. 7. [11] Phil. ii. 7. [12] Heb. ii. 16.
[13] Matt. i. 1. [14] Matt. i. 23. [15] Luke ii. 7. [16] John i. 14.
[17] Matt. i. 23. [18] John vi. 38. [19] John viii. 23. [20] 1 Tim. i. 15.
[21] Matt. i. 21. [22] John i. 10. [23] John i. 11. [24] Isa. liii. 3.
[25] 2 Cor. viii. 9. [26] Phil. ii. 8. [27] Heb. vi. 26. [28] Rom. viii. 3.
[29] Phil. ii. 8. [30] Acts ii. 24. [31] Eph. i. 19. [32] Phil. ii. 9.

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"and set Him AT HIS OWN RIGHT HAND in the heavenly places,"[1] . . "the right hand of the throne of the majesty in the heavens,"[2] . . saying to Him, "SIT AT MY RIGHT HAND UNTIL I MAKE THINE ENEMIES THY FOOTSTOOL."[3] . . and gave Him "all power in heaven and in earth,"[4] and "a name above every name,"[5] . . and exalted Him "far above all principality, and power, and might, and dominion, and every name that is named not only in this world but also in that which is to come, and HATH PUT ALL THINGS UNDER HIS FEET, and gave Him to be the head over all things to the Church which is His body, the fulness of Him that filleth all in all,"[6] for Christ "descended first into the lower parts of the earth," and then "ascended up far above all heavens, that He might fill all things,"[7] . . and having "led captivity captive" "gave gifts unto men,"[8] . . and is now "in the midst of the throne,"[9] . . seated with His Father "IN HIS THRONE,"[10] . . "crowned with glory and honour."[11] . . "ANGELS, AND AUTHORITIES, AND POWERS BEING MADE SUBJECT UNTO HIM,"[12] . . as it is written, "As I live, saith the Lord, every knee shall bow to Me, and every tongue shall confess to God,"[13] and again, "THAT AT THE NAME OF JESUS EVERY KNEE SHOULD BOW OF THINGS IN HEAVEN, AND THINGS ON EARTH, AND THINGS UNDER THE EARTH, and that every tongue should confess that JESUS CHRIST IS LORD, to the glory of God the Father."[14]

His reconciling work.

"In Him dwelleth ALL THE FULNESS OF THE GODHEAD BODILY, and ye are complete in Him, which is the head of all principality and power";[15] "for it pleased the Father that in Him should all fulness dwell; and having made peace through the blood of His cross, BY HIM TO RECONCILE ALL THINGS UNTO HIMSELF; by Him I say, whether they be things on earth, or things in heaven."[16] "In whom we have redemption through His blood, the forgiveness of sins, according to the riches of (God's) grace."[17]

His coming kingdom.

"Wherein He hath abounded toward us in all wisdom and prudence, having made known unto us THE MYSTERY OF HIS WILL, according to His good pleasure which He hath purposed in Himself; THAT IN THE DISPENSATION OF THE FULNESS OF TIMES, HE MIGHT GATHER TOGETHER IN ONE ALL THINGS IN CHRIST, BOTH WHICH ARE IN HEAVEN, AND WHICH ARE ON EARTH, EVEN IN HIM."[18] For "in the days of the voice of the seventh angel THE MYSTERY OF GOD SHALL BE FINISHED, as He hath

[1] Eph. i. 20. [2] Heb. viii. 1. [3] Heb. i 13. [4] Matt. xxviii. 18.
[5] Phil. 1. 9. [6] Eph. i. 21–23. [7] Eph. iv. 9, 10. [8] Eph. iv. 8.
[9] Rev. v. 6. [10] Rev. iii. 21. [11] Heb. ii. 9. [12] 1 Pet. iii. 22.
[13] Rom. xiv. 11. [14] Phil. ii. 10, 11. [15] Col. ii. 9, 10. [16] Col. i. 19, 20.
[17] Eph. i. 7. [18] Eph. i. 8–10.

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declared to His servants the prophets."[1] As it is written, "The seventh angel sounded, and there were great voices in heaven saying, THE KINGDOMS OF THIS WORLD ARE BECOME THE KINGDOMS OF OUR LORD AND OF HIS CHRIST, AND HE SHALL REIGN FOR EVER AND EVER;"[2] "KING OF KINGS AND LORD OF LORDS,"[3] for "the Son of Man SHALL COME IN HIS GLORY, AND ALL THE HOLY ANGELS WITH HIM, THEN SHALL HE SIT UPON THE THRONE OF HIS GLORY, and before Him shall be gathered all nations;"[4] "In the day when God shall judge the secrets of men by Jesus Christ;"[5] "For the Father judgeth no man, but HATH COMMITTED ALL JUDGMENT UNTO THE SON, that all men should honour the Son, even as they honour the Father."[6] "Then shall the King say to them on His right hand, Come ye blessed of My Father, INHERIT THE KINGDOM PREPARED FOR YOU FROM THE FOUNDATION OF THE WORLD."[7]

The end, when He gives up the kingdom to the Father.

Then when this mortal has put on immortality "shall be brought to pass the saying that is written, DEATH IS SWALLOWED UP IN VICTORY."[8] "For as in Adam all die, even so in Christ shall all be made alive, but every man in his own order; Christ the firstfruits; afterwards they that are Christ's at His coming. THEN COMETH THE END, when He shall have delivered up the kingdom to God, even the Father; when He shall have put down all rule and all authority and power. FOR HE MUST REIGN TILL HE HATH PUT ALL ENEMIES UNDER HIS FEET. The last enemy that shall be destroyed is death. For He hath put all things under His feet. But when He saith all things are put under Him, it is manifest that He is excepted which did put all things under Him. And when all things shall be subdued unto Him, then shall the Son also Himself be subject unto Him that put all things under Him, THAT GOD MAY BE ALL IN ALL."[9]

The Eternal Throne of God and the Lamb.

Of the eternal state the Apostle John beheld a vision which he thus describes—"And I saw a new heaven and a new earth, for the first heaven and the first earth were passed away."[10] "And I saw a pure river of water of life, clear as crystal, proceeding out of THE THRONE OF GOD AND OF THE LAMB."[11] "And there shall be no more curse, but THE THRONE OF GOD AND OF THE LAMB SHALL BE IN IT; and His servants shall serve Him; and they shall see His face, and His name shall be in their foreheads, . . . and THEY SHALL REIGN FOR EVER AND EVER,"[12] beholding His "glory,"[13] "who is OVER ALL GOD

[1] Rev. x. 7. [2] Rev. xi. 15. [3] Rev. xix. 16. [4] Matt. xxiv. 31, 32.
[5] Rom. ii. 16. [6] John v. 22, 23. [7] Matt. xxiv. 34. [8] 1 Cor. xv. 54.
[9] 1 Cor. xv. 22–28. [10] Rev. xxi. 1. [11] Rev. xxii. 1. [12] Rev. xxii. 3–5.
[13] John xvii. 24.

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BLESSED FOR EVER";[1] "the Alpha and the Omega, the First and the Last, the Beginning and the End."[2] "Wonderful, Counsellor, the Mighty God, the Everlasting Father, the Prince of Peace," . . . of the "increase" of whose "government and peace there shall be no end."[3] "To Him be glory and dominion for ever and ever. Amen."[4]

From these and other passages it is evident that Scripture teaches us that all things have been created through the instrumentality of our Lord Jesus Christ, are upheld by the word of His power, were made for Him, and shall yet be gathered together in unity under His manifested headship,—in a word, that in the measureless realm of creation Christ is instrumentally first, midst, and last; the mediate cause, centre, and end of the entire system.

[1] Rom. ix. 5. [2] Rev. i. 11, and xxii. 13. [3] Isa. ix. 6, 7. [4] Rev. i. 6.

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CHAPTER I.

CENTRALIZATION IN THE NATURAL AND IN THE REVEALED.

THAT Creation is centred in Christ is according to the foregoing passages the doctrine of Scripture,—"in Him all things consist." Does Nature confirm this testimony? We hold that it does, and in the first place by its great Law of Centralization; a Natural Law reaching into the Spiritual world, where it finds its culmination.

(1) There exists in Nature a universal Law of Centralization, controlling the inorganic, the organic, and the moral worlds.

(2) Such a Law similarly exists in Revelation, linking in unity its various parts, and reigning in the system of Redemption which it reveals.

(3) The Law of Centralization not only prevails in Nature and in Revelation, considered separately, but also *in the relation of the one to the other.* The Natural is centred in the Revealed.

(4) As the Natural is centred in the Revealed, so the Revealed is centred in Christ, and thus the whole system of things, both Natural and Revealed, is centred in Him.

In our study of the Law of Centralization we shall commence by tracing its prevalence in Nature, first in the inorganic, and then in the organic and moral worlds.

SEC. I. CENTRALIZATION IN NATURE.

I. THE HELIOCENTRIC PRINCIPLE.

For many ages men believed in a system of the world which placed the earth in the centre of the Universe, with

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the sun, moon, and planets revolving in their several orbits, and the whole stellar heavens turning around it every twenty-four hours.

At the commencement of the sixteenth century, when in the providence of God a marvellous increase of light was granted in the moral world by means of the Reformation, and in the realm of literature by the revival of learning, and the multiplication of books through the use of the newly-invented printing press, Nicholas Copernicus was raised up to solve the perplexing problem of the movements of the sun and planets. Repelled by the complexity of the Ptolemaic theory, he sought a simpler explanation of the celestial system. He observed that the variable appearance of the planets in different parts of their orbits seemed impossible to reconcile with the notion that the earth was the centre of their revolutions. The planet Mars, when in opposition to the Sun, is almost as bright as Jupiter, while towards conjunction it decreases to a star of the second magnitude. The movements of Mercury and Venus had been explained by some astronomers of antiquity on the principle that they revolved around the sun. They had inferred this from the fact that these planets which rise or set with the sun are seen alternately on different sides of that luminary. Some of the ancients, as Pythagoras, had even held that the earth made an annual journey round the sun. But this view was rejected as undemonstrated, and contrary to the received system of philosophy. Undaunted by popular opinion, Copernicus applied the Heliocentric principle, which seemed to solve the movements of Mercury and Venus to those of Mars, and found in doing so that it explained the changes which take place in its apparent magnitude in different parts of its orbit. He then advanced further, and shifting in thought the centre of the revolutions of the remaining planets from the earth to the sun, and placing the earth with its attendant moon between Venus and Mars, revolving like the other planets

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around the sun, and rotating on its axis in twenty-four hours, he studied the various effects which would necessarily follow in relation to the real and apparent movements of all parts of the system. The result was a profound conviction of the truth of the Heliocentric principle. "By no other arrangement," says Copernicus, "have I been able to find so admirable a system of the Universe, and so harmonious a connection of orbits, as *by placing the lamp of the world (lucernam mundi), the Sun, in the midst of the beautiful temple of Nature as on a kingly throne, ruling the whole family of circling stars that revolve around him.*"

The publication of the work of Copernicus took place at a remarkable time in the century of the Reformation. Calvin's "Institutes" were published in 1535; the first session of the Council of Trent was in 1545; the death of Luther in 1546, and the death of Copernicus in 1543. The great work of Copernicus was published the same year, only a few days before the decease of the author. Copernicus and Luther died thus within three years of each other. Unknown the one to the other they had laboured side by side for half a century for the establishment of the true system of the world.

A copy of the work of Copernicus lies before me. It is entitled "Nicolai Copernici Thorvensis de Revolutionibus Orbium Cælestium." I place it upon a copy of Ptolemy's "Almagest;" and above the work of Copernicus lay a copy of Newton's "Principia." How interesting, and how great the progress in the knowledge of the system of Nature indicated by those three celebrated compositions? Between the publication of the first and second of these extended fourteen centuries; between the second and third 144 years. To Ptolemy the earth was the centre of the universe. To Copernicus the sun was the centre of the terrestrial and planetary system. To Newton one law of gravitation ruled the innumerable spheres.

Thus, in these last days, according to the "sure word of

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prophecy," "knowledge" has "increased." But the mind cannot rest satisfied with a merely material centre, or a merely mechanical law, as an explanation of the true system of the world and of the universe. Life, intelligence, morality, religion refuse to be ignored. Is there, the mind asks, a "sun behind the sun," a moral sun behind the material luminary, whose glory is "above the brightness" of the star of day? Is there in the moral world a law which is the archetype of the law of gravitation in material nature? If there is, does this law of moral gravitation own that moral Sun as the supreme centre by drawing and holding to it the moral universe? And is that central Sun the Lord, Life, and Light of the entire system? Such is, doubtless, the doctrine of Revelation. Is that doctrine confirmed by the teachings of nature, history, and experience? We hope to show that it is. But this can only be done by degrees, a step at a time. Meanwhile we return to Copernicus and his marvellous demonstration. His discoveries point in the direction we seek, for he helped to establish the law of Centralization, and to unveil the material type of the moral system.

We open the work of Copernicus. Ptolemy wrote in Greek; but this and the "Principia" are in Latin. How does Copernicus proceed with his demonstration? He begins with the most elementary facts and principles. Having stated "quod mundus sit sphæricus," he shows "quod terra quoque sphærica sit," that the system of nature in its motion, and the form of the earth alike are spherical. In this view Copernicus followed Ptolemy and other ancient philosophers. Pliny said, "We maintain that there are men dispersed over every part of the earth, that they stand with their feet towards each other, that the vault of the heavens appears alike to all of them; and that they, all of them, appear to tread equally on the middle of the earth."[1] Copernicus refers to the well-

[1] Pliny, l. ii., c. 64.

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known fact that a vessel seems to descend into the sea as it increases its distance. His next point is, "quomodo terra cum aqua unum globum perficiat"; that the earth and the water form a single globe. The then comparatively recent voyage of Columbus to America afforded an argument for this conclusion. America and India occupy opposite parts of the world. The sphericity of the earth is also proved by the form of its shadow in eclipses of the moon. His next step is a reference to the circular movement of the celestial bodies. The sun, moon, and planets have such a motion. He then raises the question, "An terræ competat motus circularis, et de loco eius," Has the earth a circular movement, and what is the place of the earth in the universe? This is the point he desires to ascertain. It is from the earth that we observe the heavens. If the earth has a movement, the heavens will appear to move in a contrary direction. The heavens appear to be transported from the east to the west in twenty-four hours; leave the heavens at rest, and give this movement to the earth, but from the west to the east, and you will have the same appearances. Then follows the question, "De immensitate cæli ad magnitudinem terræ," of the immensity of heaven in comparison with the earth. The horizon of the earth divides the heavens in two equal parts; therefore the volume of the earth is a point, and this point is not sensibly distant from the earth's centre. If the heavens are so immense, how can we suppose them to revolve around the earth in twenty-four hours? He next discusses the reasons which led the ancients to believe that the earth was immovable in the midst of the universe. Ptolemy feared that the movement of the earth would scatter all the objects on its surface into surrounding space. But, says Copernicus, if the sphere of the stars revolved around the earth in twenty-four hours, the movement being infinitely greater than that of the earth on its axis, would have a correspondingly greater tendency to disperse the stars in space! Thus Copernicus

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turns on the objector his own argument. The daily revolution of the mighty sphere of the universe would derange the situation of the heavenly bodies; and the most distant stars having greater velocity in proportion to their distance would continually recede, and the heavens have no bounds. The great explorer of the system then proceeds to demonstrate the triple movement of the earth—its diurnal revolution on its axis; its annual revolution round the sun, and a conical revolution of its axis about an imaginary line perpendicular to the ecliptic. The first of these explained the diurnal movement of the heavens from east to west; the second, the annual progress of the sun in the signs of the zodiac; the third, the parallelism of the earth's axis during the annual revolution, together with the retrograde motion of the equinoctial points, or the places where the path of the sun cuts the celestial equator. Copernicus makes the mean annual precession of the equinoxes to be 50″ 12‴, an amount which corresponds pretty closely with that assigned by modern observations. In order to accomplish his calculations Copernicus necessarily employed trigonometry, and proceeds to establish its fundamental principles. He afterwards deals with the movements of the planets, and shows how they may be accounted for on the Heliocentric theory. His explanations were vitiated in measure by the Ptolemaic notion to which he adhered of the circular form of the planetary orbits. Nor were the resulting discrepancies cleared up till Kepler's great discovery of the ellipticity of their paths. The modern demonstration of the spheroidal figure of the earth has given practical confirmation to the Copernican theory of its diurnal revolution, while the discovery of the velocity of light and aberration of the stars has proved the reality of its annual motion.

The use of the telescope has also greatly enlarged our conceptions of the solar system. The number of worlds known to Copernicus as circling around the sun was but

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seven, including the earth's satellite; viz., Mercury, Venus, the Earth with its Moon, Mars, Jupiter, and Saturn. Since the time of Copernicus, the moons of Jupiter and Saturn have been discovered; the planets Uranus and Neptune, with their satellites; the moons of the planet Mars; more than three hundred Planetoids, and countless Cometary members of the solar system. "There exists within the solar system a variety of size and structure, of motion, arrangement and aggregation, which is already inconceivable, and yet, doubtless, but faintly shadows forth the real complexity and richness of the scheme swayed by our sun."[1]

We will now consider the sun as the centre of *Light*, *Heat*, and *Motion*.

I. The Sun as the Centre of Motion.

In their various paths the planets, planetoids, satellites, and comets circle round the sun. Their paths are curved. Every curve is related to a common centre. All is motion, yet all is harmony. One power is supreme.

"One of the most important of the sun's functions," says Procter, "is that by virtue of which he rules the motions of his family of planets. By the exercise of his mighty attractive influence, he continually controls the tendency which they have to rush tangentially far out into space beyond the influence of his illuminating, heating, and actinic rays. Their swift orbital motions, combined with the relative stability of their axial pose, result in producing the orderly succession of the seasons. But this succession would come to an end, were it not for the stability of the orbital motion; and this stability is due to the sun's overmastering attraction. To this it is due that the paths of the planets, though undergoing continual processes of variation, yet suffer no sudden changes as respects their distance from him, or therefore, as respects the period necessary for a complete revolution. Nay, so perfect is the whole scheme of governance, that even the processes of slow change take place within limits, and those limits not very wide. Not merely can the orbits of the planets suffer no sudden change, but they can neither suffer a great change nor a permanent change."[2]

[1] Procter, "Other Worlds," p. 226.
[2] "The Sun, Ruler of the Planetary System," p. 68.

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2. The Sun as the Centre of Light and Heat.

The amount of solar heat received by the earth is enormous. "It has been calculated that on one square mile exposed at noon under the equator, 26,000 tons of ice would be melted in an hour; and fifty million times this amount of heat is actually received by the earth from the sun every hour. Were this amount of heat evenly distributed over the earth's surface, it would, in the course of a year, suffice to heat to the boiling point an ocean of frozen water sixty miles deep." [1]

The constant circulation of winds is effected by the action of solar heat. Water circulation, with all its marvellous effects, is carried on from year to year, and age to age, simply by solar influence. The sun is the all-important reservoir of life-supporting power, constantly sending its royal tide of vitalizing light and heat, through all the arteries of the mundane system. "Vegetable life, without exception, is generated under the sun's quickening influence; without it not a seed would germinate, not a blade would spring, not a leaf would shoot, not a bud would burst, not a petal would unfold, not a flower would bloom, not a fruit would ripen. It alone raises and distils the dews and rains which feed and nourish the entire world of plants; it alone dyes the field and the forest with their verdure; it alone paints the blossom with its beauty; and tints with hues of loveliness both earth and heaven. It gives birth to the breezes which stir the movements of every leaf and branch, scatter seeds and perfumes, and strip away all that has yielded to decay. It is the joyful parent of spring, and the fruitful fount of summer wealth and autumnal glory.

"Animals are equally indebted to the sun. Without it none of the innumerable forms of animal life could for a moment exist. Without its warmth all muscular power would be

[1] "Approaching End of the Age," p. 240.

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paralysed, the frozen blood would fail to circulate, respiration would cease, and life would become extinct. Its rising and its setting, its shining and withdrawing, its ascent in summer, its decline in autumn and winter, and return in spring, control the cycles and create the boundaries of all the phases of animated nature; the sleeping and the waking, the stillness and the activity, the silence and the song, the action, the passion, and the repose of innumerable tribes of living creatures, peopling air and earth and seas," [1]

Combining thus these relations, we observe that the sun is to the entire system the centre of light, heat, and motion,—the physical centre of unity. The sun is the commanding centre of *support*, and the beneficent centre of *supply*. It controls and nourishes. It holds together its family of worlds, guiding the curve of every path which they pursue, while at the same time it pours out upon them without stint or measure the rich flood of its illuminating and vitalizing minstrations.

3. The Heliocentric principle in the Stellar System.

To modern astronomy *the sun is a star*—our nearest star—and every star is a sun. The stars are "real suns, not mere lights." Two hundred years ago Sir Isaac Newton recognised the similarity of the light of the sun and of the stars. At the end of the "Principia" he says, "The light of the fixed stars is of the same nature with that of the sun." His working instrument in the study and analysis of light was the prism; what would he have said to the revelations of the spectroscope? We now know that the light which emanates from every star contains elements identical with those discovered in the sun. And the stars radiate heat as well as light. Newton discovered that "lights which differ in

[1] "Approaching End of the Age," p. 247.

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colour differ in refrangibility"; and that the "light of the sun consists of rays differently refrangible." But the spectroscope, by the multiplication of prisms, has dispersed or separated the refracted rays, so as to constitute a broad band of colour, and by the use of a *narrow slit*, instead of a round hole, for the admission of light, has given *definition* to the various colours, and rendered visible the numerous delicate transverse lines whose meaning has been interpreted by modern investigation. These lines cross the spectrum in hundreds and thousands. Their order is perfectly regular. And they are produced by the passage of light through media possessed of absorbing power.

"Here, then, we are conducted to a remarkable principle, which has led to the interpretation of the dark lines in the spectrum of the sun. We find that sodium vapour, when heated, gives out light of a very particular type, which, viewed through the prism, is concentrated in two lines. But the sodium vapour possesses also this property, that light from the sun can pass through it without any perceptible absorption, save and except of those particular rays which are of the same refrangibilities as the two lines in question. In other words, we say that *if the heated vapour of a substance gives a spectrum of bright lines, corresponding to lights of various refrangibilities, this same vapour will act as an opaque screen to lights of those special refrangibilities, while remaining transparent to light of every other kind.* This is a matter of some little complexity, but it is of such momentous importance in the theory of spectrum analysis that we cannot avoid giving a further example. Let us take the element iron, which in a very striking degree illustrates the law in question. In the solar spectrum some hundreds of the dark lines are known to correspond with the spectrum of iron. This correspondence is exhibited in a vivid manner when, by suitable contrivance, the light of an electric spark from poles of iron is examined in the spectroscope simultaneously with the solar spectrum. It can be shown that hundreds of the lines in the sun are identical in position with the lines in the spectrum of iron. But the spectrum of iron, as here described, consists of bright lines, while those with which it is compared in the sun consists of *dark* lines. These dark lines can be completely understood, if we suppose that the vapour arising from intensely heated iron be present in the atmosphere which surrounds the luminous strata on the sun. This vapour would then, by the law in question, *stop* precisely the same rays as it *emits* when incandescent, and hence we learn the important

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fact that iron, no less than sodium, must, in one form or another, be a constituent of the sun." [1]

"A large number of terrestrial substances have been examined, in conjunction with the solar spectrum, and thus it has been established that several of the elements known on the earth are present in the sun. These elements are as follows:—hydrogen, sodium, barium, calcium, magnesium, aluminium, iron, manganese, chromium, cobalt, nickel, zinc, copper, titanium, cadmium, strontium, cerium, uranium, lead, potassium." [2]

The spectroscope "tells us that *all the stars are, more or less, like the sun*, for when they are shown in the same manner we find nearly the same appearances; and here, again, in the same manner we can tell what substances are burning in the stars." [3]

The analogy thus traced between *the constitution* of the sun and that of the stars, leads to the conclusion that in all probability there is an analogy between the use or service rendered by the sun and that which is rendered by the stars. The sun, as we have seen, is the centre of light, heat, and motion to a family of dependent worlds. We can hardly suppose that the sun in this respect is an exception, a solitary exception among the myriads of suns which shine in the universe. If not; if, instead of being an exception, it is a sample of countless suns, then there must exist around us an infinity of planetary worlds invisible to the highest powers of the telescope, and the law of centralization which we know prevails in stellar systems in the form of gravitation, must also prevail in the collocation of primary and secondary, of sun and planet, throughout the star-strewn realm of infinitude.

"The stars, of whatever their interiors may be composed, present to us on their exteriors a bright surface, which is called the *photosphere*; outside this photosphere, as outside the surface of our earth, is an *atmosphere* composed of vapours. The materials of the photosphere are at an intense heat: so hot are they, that although they consist of *metals* and other substances, they exist in a *liquid* or vaporous state, these states being the effect of heat. We can render this intelligible by taking water and iron as instances: when both are in a solid state, we get ice and hard iron; if we apply heat, we melt both ice and hard iron into water and molten iron,—we know that it requires more heat to melt iron than it does to melt ice. Having got both into a liquid state, additional heat will turn the water into steam, and the molten iron into iron vapour; but again the heat required to vaporise the iron is vastly greater than that required to turn the water into steam—how much greater may be gathered from the fact that while ice melts at 0° of the centigrade ther-

[1] Ball, "Story of the Heavens," pp. 448, 449.
[2] *Ibid.*, p. 449.
[3] Lockyer, "Astronomy," p. 233.

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mometer, iron only melts at 2,000° : *the heat required to produce iron-steam or vapour is not known.* The degree of heat therefore present in the photospheres of the stars exceeds our measurement. Do we know anything of the substances which throw out this heat, and therefore light?

Beta Pegasi	contains	hydrogen, magnesium, sodium, and perhaps barium.
Sirius	"	hydrogen, magnesium, sodium, and iron.
Alpha, Lyræ (Vega)	"	hydrogen, magnesium, sodium, and iron.
Pollux	"	hydrogen, magnesium, sodium, and iron.

"It is remarkable that the elements most widely diffused among the stars, including hydrogen, sodium, magnesium, and iron, are some of those most closely connected with the living organisms of our globe." [1]

II. The Law of Gravity.

The law of centralization, whose operation is seen in the disposition or arrangement of sun and planets, is further, and far more remarkably and widely exhibited in the existence and dominion of the universal law of gravitation. Gravitation is a centralising force; a force "by which bodies are drawn, or impelled, or tend towards a point as to a centre." [2] The weight of a body is "the centripetency, or propension of the whole body towards the centre." It is "an endeavour and propensity of the whole towards a centre, arising from the propensities of the several parts taken together." [3] It is "greater in a greater body, less in a less body; it is greater near to the earth, and less at remoter distances." This force extends to the planets and the sun. "Each planet is acted upon by *a force directed towards the sun*, and varying inversely as the square of the distance from the sun." [4] It even extends to the stars. The orbits of the double or binary stars exhibit the sway of the same force as that which guides and controls the paths of the planets.

[1] Lockyer, "Astronomy," pp. 25, 26.
[2] Newton, "Principia," Def. 5.
[3] *Ibid.*, Def. 8.
[4] Ball's "Elm. of Astron.," p. 309.

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Newton's work, unfolding "the most magnificent discovery that was ever made by man—the principle of universal gravitation," is "justly considered by all men as the greatest of the monuments of human genius." [1]

This great discoverer "was singularly endowed with all those qualities which enable the mind to unfold the laws of the material world. He could detect with a glance the distinctive features of natural phenomena, and with marvellous sagacity divine the principles on which they depended. With these valuable qualities he combined a proneness to generalization, which constantly led him to connect together the facts he was contemplating, and advance from them to more comprehensive views of the operations of nature. He possessed also powers of mathematical invention adequate on all occasions to surmount the difficulties he might encounter, either in ascending by induction to general laws, or in subsequently redescending from them to the explanation of their various consequences When we consider, moreover, that he was imbued with an extreme love of truth, which induced him to reject all speculations, however ingenious and beautiful, which were not reconcilable with facts; that his whole soul was wrapped up in the study of nature and her works, and that he possessed in an extraordinary degree the power of concentrating the whole energies of his intellect upon the object of his researches, we may form some conception of the advantages under which he approached the examination of physical questions. It is, in fact, in consequence of his possession of all these qualities in so high a degree that he stands without a rival among ancient or modern philosophers.

"The transcendent powers of Newton's intellect are equally discernible in his inductive assent to the principle of gravitation, and in his subsequent developement of its numberless consequences. Notwithstanding the sagacity he exhibited in connecting the fall of a stone at the surface of the earth with the motion of the moon in her orbit, and both of these phenomena with the motions of the planets round the sun, he would inevitably have failed in establishing this sublime conception as a physical truth, if he had not also possessed sufficient mathematical genius to solve the problem of central forces for an orbit of variable curvature. To those who are acquainted with the state of mechanical science in Newton's time it would be superfluous to mention that the highest powers of invention were indispensable for this purpose. When we reflect on the fact that Kepler spent a considerable part of his life in vain efforts to establish a connection between the motion of the planets and the con-

[1] "Anal. View of Sir I. Newton's 'Principia,'" by Lord Brougham, p. 1.

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tinual agency of some physical principle, that the question entirely escaped the sagacity of Galileo, and that Huygens, although in complete possession of the laws of motion, was unable to advance in its solution beyond the case of a circular orbit, we may well imagine the obscurity in which it was enveloped, and the mathematical difficulties which the investigation must have offered. Even when Newton had succeeded in this research, he merely established the mutual gravitation of the planets, according to the law of the inverse square of the distance; but he was not also enabled to extend the same principle to the ultimate particles of which the masses of the planets are composed. In order to effect this object, and thereby to establish the law of gravitation in its widest generality, he was compelled to determine the effect of the attraction of a spherical agglomeration of particles. The problem is of a totally opposite nature to the one already referred to; for here we have an infinite number of particles in juxtaposition, all attracting the body with unequal intensities and in different directions. Its intricacy is manifest at first sight; nor was this circumstance compensated by any preliminary hints calculated to facilitate its solution, for the mere conception of such a problem had not yet occurred to any mathematician. Newton, however, again triumphed over opposing difficulties, and thus succeeded in riveting, with the bonds of demonstrative reasoning, all the links of his magnificent generalization." [1]

The mode by which Newton reached his discoveries was thus described by himself: "I keep the subject constantly before me, and wait till the first dawnings open slowly, little by little, into a full and clear light." On another occasion, when some of his friends were complimenting him on the great results he had achieved, he replied, "I know not what the world will think of my labours, but to myself it seems to me that I have been but as a child playing on the seashore; now finding some pebble rather more polished, and now some shell rather more agreeably variegated than another, while the immense ocean of truth extended itself unexplored before me." "What a lesson of humility is here conveyed to those explorers of nature who cannot congratulate themselves on the discovery even of such shells and pebbles as those which adorn the cabinet of the Principia." [2]

[1] "History of Physical Astronomy," Grant, pp. 33, 34. [2] *Ibid.*, p. 40.

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III. Centralization in the Mineral World.

When we descend from a general examination of the attractions which hold together the various bodies of which the material universe is composed, including the suns and planets of its several systems, to a study of the mineralogical laws which regulate the symmetric forms assumed by the inorganic materials of the visible world, we find that the law of centralization still prevails, though the mode of its operation is different. In the mineral kingdom solid bodies are met with in great variety, bounded by plain, smooth surfaces. Such bodies are termed crystals. "The leading property of crystals, as distinguished from mere geometrical solids, is the invariability of the angles between corresponding faces in different individuals of the same substance. The character of the symmetry varies in different groups of crystals, and forms the basis of their classification into systems." [1] *The law of crystallisation is a law of centralization.* The crystallizing force is a tendency in mineral matter to assume symmetric forms around certain centres of arrangement. In crystallization symmetry is "a similar arrangement of two or more corresponding forms *round a common centre.*" [2] "The imaginary line round which the parts of a crystal are symmetrically disposed is called the axis of symmetry, or simply the axis of the crystal."

IV. Centralization in the Organic World.

To the intelligent eye the spectacle presented by organized nature transcends in wonder that revealed by the inorganic world. A simple pond covered with the leaves and flowers of water plants, and filled with innumerable microscopic creatures in ceaseless activity, rotating, circling, pursuing,

[1] Bauerman, "Systematic Mineralogy," p. 7.
[2] Miller, "Inorganic Chemistry," p. 98.

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and multiplying, is more marvellous than any number of lifeless objects, shining in space. A single microscopic plant, the *volvox globator*, is a more complex and wonderful system than the planet Saturn with all its rings and moons. "When examined with sufficient magnifying power the *volvox* is seen to consist of a hollow sphere, composed of a very pellucid material, which is studded at regular intervals with minute green spots, and which is often traversed by green threads connecting these spots. From each of the spots proceed two long flagella, so that the entire surface is beset with these lashing filaments, to whose combined action its movements are due. Within the external sphere may generally be seen from two to twenty other globes, of a darker colour, and of various sizes; the smaller of these are attached to the inner surface of the investing sphere, and project into its cavity; but the larger lie freely within the cavity, and may often be observed to revolve by the agency of their own flagella." [1] Here are revolving, self-multiplying spheres, sphere within sphere! The planet Saturn cannot reproduce itself; the *volvox globator* can to any extent endlessly!

A cloud of gnats mounting on the wind exhibits powers of a loftier kind than a cloud of stars swept forward by an external impulse. A gnat on the wing conquers the gravity which chains the globe. Its movements are self-directing. It is a living, sentient entity, in which the most diverse parts and powers are crowded and combined.

1. Centralization in the Vegetable World.

The law of centralization which we have traced in inorganic nature, is found to prevail in the organic world. The solar system is not more truly centralized in its structure than the humblest plant by the wayside. Every plant grows from a centre. In every plant the organs are attached to a

[1] Carpenter, "Microscope and its Revelations," p. 479.

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centre. The root, stem, and leaves constitute a centralized unity. The root is the descending portion, and the stem the ascending portion, of the axis. As in the solar system there is a common axis of support and motion, ministering supplies of a life-sustaining character, so in the plant. The axis of the plant supports the leaves, flowers and fruits, and supplies them with nourishment. The two systems, however different, are associated by a common principle.

The varied currents circulating in plants are centralized. The ascending, descending and ramifying movements have a relation to a centre of supply.

Higher orders of plants have a more marked *concentration* of structure than lower; the endogens than the acrogens, and the exogens than the endogens. In the endogens the exterior part of the stem is more solid than the interior; in the exogens, or highest order of plants (that including forest trees), this is reversed. The hardest wood is in the centre of the trunk, surrounding the pith, and the plant grows by adding an external circle or layer of wood every year.

2. Centralization in the Animal World.

The name zoophite means "plant animal." The lowest animals are plant-like, and have the form of an axis with surrounding branches or leaves. Corals have branches ranged round a stem. In polyps the leaves, so to speak, become limbs. In the "sea anemones" the petal-like tentacles collect the food, and are arranged in bundles or rows round the mouth. The bodies of zoophites have a circular plant-like form. Many zoophites are rooted. The limbs of the Radiata, as the name implies, are arranged as rays round a centre.

From the lowest to the highest orders of animals *perfection is in proportion to the "concentration of the central masses of the nervous system."* In the lower forms there is a marked want of such concentration. In the lowest animals no nervous filaments have been discovered. In the Mollusca the nervous

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system consists of two long cords dilated into ganglia. In the Articulata "the nervous centres are arranged in two parallel lines along the whole length of the body, forming a series of double ganglia, or brains, belonging apparently to the individual segments of which the animal is composed. As the articulata become more perfect in their outward form, the number of the brains becomes diminished, while their proportionate size increases; and thus in the carnivorous insects, Arachnida, and Crustacea, they are all united into a few great masses, which, becoming the general centres of the entire system, admit of a perfection in their external senses, a precision in their movements, and an energy of action, of which the detached character of the ganglia in the lower tribes was incapable."

In the Vertebrates "the arrangement of the nervous centres indicates the *greatest possible concentration and development.*[1]

In the mollusca and articulata muscles are attached to a hard external *shell or ring;* while in the vertebrates the attachment is to an internal *organized skeleton.* The fulcrum of force in the higher animals is more centralized than in the lower. In man both osseous and nervous centralization reach their highest development.

LAW OF DUAL CENTRALIZATION.

Plants are mono-centric; animals are di-centric. In plants the various parts and organs, and the movements of circulation have reference to a common life centre. Animals, in addition to *a centre of life*, possess *a centre of motion.* In the higher animals this dual system is seen in its pefection. The heart and the head, in the vertebrates, are *Hæmal and Neural Centres* connected respectively with the support of life and the control of movement. In the spinal column a "*typical*

[1] Jones, "Animal Kingdom," pp. 8–10.

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Vertebra consists of a centre or body around which are arranged other pieces (called technically apophyses, or projecting parts) so as to form *two principal arches, one superior, the other inferior.* The upper arch gives protection *to nervous matter*, and is hence *called neural.* The lower arch, *called hæmal, protects blood vessels* . . . the body of the vertebra may be considered the foundation of the arches, and the neural and hæmal spines represent, in position, the keystones of each. . . . Generally speaking, it is not difficult to demonstrate that in the chain of bones extending from the head to the tail inclusive, we have a series of pieces partaking of the nature of the *common typical structures* just described. It is true that some present a near approach to the model, while in others the real nature of the parts is considerably masked, so that careful examination is necessary to show the relation. *Knowing the type*, however, we can explain all departures from it, whether owing to omission or contraction, adhesion or complication of pieces." [1]

The dual system of centralization, which prevails in animals, especially in those of the higher orders, attaches to *the nervous system* as connected with the Hæmal and Neural centres. "In vertebrates the nervous system consists of *two distinct parts;* one presiding over animal life, the instrument of thought, sensation, volition; and the other over organic life, regulating nutrition, circulation, respiration, and reproduction." [2]

The law of dual centralization, conspicuous in the higher forms of organic nature, prevails, as we shall show later on, in the moral world in the relations of history and chronology.

[1] McCosh, "Typical Forms," p. 183.
[2] "Three Kingdoms of Nature," Haughton, p. 185.

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V. Centralization in the Moral World.

1. Matter is not all that exists in the Universe. Mind also exists, with its lofty attribute of the moral faculty. Philosophy has recognized the fact. "Two things fill me with awe," said Kant, "the spectacle of the *starry heavens* above us, and that of the *moral law* in the heart of man."

Man is consciously a dual being, and dwells in a dual universe. Extension and thought "constitute two worlds, co-existing and intermingled, yet without common predicate." Of these two worlds, that of extension is external, that of thought internal. To extension belong length, breadth, depth, figure, and motion; to thought belong memory, imagination, reason, affection, will. We are compelled to distinguish between *quantitative* and *moral* relations. They are so different as to be incapable of expression in the same terms. And they are differently perceived. Sense witnesses to the world of matter; consciousness to the world of mind. The eye sees beauty, the mind virtue and truth. Our certainty of the existence of an external material universe is no greater than our certainty of the existence of an internal thinking mind, and responsible will. It is as clear to us that within our bodily frame there is "a substantive being, whose nature and essence it is to think," as that there is an objective world without us. The proof of a moral order is as irresistible as the proof of material order. The law of conscience is as real as the law of gravitation. Right and wrong, as truly as light and darkness, are in everlasting antithesis.

The material heavens are not the loftiest which meet the gaze of man. "If, after having looked around," says Naville, "we turn our regard upon ourselves, we then discover *other heavens, spiritual heavens*, in which shine like stars of the first magnitude those objects which cause the heart of man to

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beat, so long as he is not self-degraded—*truth, goodness, beauty;* now we feel that we are made for this higher world. Material enjoyments may claim our will; we may, in the indulgence of unworthy passions, pursue what in its essence is only *evil, error,* and *deformity;* but, if all the rays of our true nature are not extinguished, a voice issues from the depth of our souls, and protests against our abasement. Our aspirations towards these spiritual excellencies are unlimited."

2. The law of centralization prevails in the mutual relation of the material and moral parts of man's complex nature. The higher nature, with its mental and moral powers, is not the exterior, but the interior. The body is the temple of the soul.

3. Man is a social being. Every society exhibits the operation of the law of centralization. A society is a union of individuals. The simplest and most fundamental form of this union is the family. In a well-ordered family authority is centralized. The growth of civilization is marked by ever-advancing centralization. Families unite into tribes, tribes into nations, nations into kingdoms, kingdoms into empires or confederacies. The heterogeneous multitude becomes an organized unity, labours are divided, classes and combinations arise for mutual help, and the co-ordination of all the parts of the social structure is progressively realized.

4. The moral law written in the human heart, whether transgressed or fulfilled, is a law of unity. It holds a place in the moral world analogous with that of *gravitation* in the material. Virtue or goodness is—

"A law or disposition which binds man to man by the tie of a common humanity, and excludes all that operates merely to separate men, all affections which tend to introduce discord and conflict: it excludes malice and anger, and directs to mildness and kindness. Men feel, in the first place, the kinds of this affection which operate within certain limited spheres. We feel and conceive the affection of love at first, as binding together the members of the same family, or the same com-

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munity; but man is capable of extending his love to all mankind, in proportion as there is unfolded in his mind the conception of *the community of the nature of all men with his own nature;* the conception of the common affection, reason and moral sentiments in which all men participate. With a development of this conception he is led to a love of man as man, and a desire for the good of all men—an affection which conforms to our idea of a virtue; for it is an affection in which all mankind are ready to sympathise, and which binds together man as man." [1]

VI. The Central Principle.

As central in the moral world, which is itself central in the material, the moral law *holds the central place in the universal system.* It is the law of laws. Characterised by the unbiassed and unswerving uprightness, straightness, or equity of its dictates, it is known as the *law of righteousness.* Righteousness is simply rightness. In its ultimate analysis this law of rightness is *love*, the purest, highest, and most comprehensive of all principles. Its exclusions and inclusions embrace the entire realm of morality. Love worketh no ill. Love worketh all good. No more comprehensive moral principle can therefore exist. As applicable to all moral beings whatsoever, no higher or greater moral law than the law of love can be conceived. Universal justice and benevolence are included in its range, and eternal harmony in its results. Upon its fulfilment depends the union or unity of the moral universe. No sacrifice therefore of this principle can pass unchecked in a universe which deserves the name. Order and unity must prevail, or the system perish.

VII. The Hierarchical Character of the System of Nature.

The principle of Centralization in Nature is further exhibited by the hierarchical character of its system. Throughout

[1] Whewell, "Elements of Morality," sec. 118.

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its entire order there reigns *a law of Subordination.* Lower forms and functions are subjected to higher; law to law, and kingdom to kingdom.

1. *Inorganic nature subserves the organised world.*

The sun, moon, earth, and the terrestrial elements serve the interests of living and animated creatures. The sun radiates light and heat for the benefit of the organic world. Solar light shines for the sake of vegetation, and for animals furnished with the sense of sight. Solar heat does not pour down from the heavens to warm lifeless stones and barren rocks, but to cause living seeds to germinate, flowers to blossom, fruits to ripen, and fluids in the frames of animals to circulate. Without such heat the sap in every plant, and the blood in every animal, would freeze, and all existence perish. The moon reflects the light of the sun, and cheers and beautifies the night for the sake of creatures which can utilize its light and enjoy its loveliness. The harvest moon, as its name implies, prolongs its full-orbed splendour just at the season when its light is most required by man. The solid earth serves as the foundation which supports innumerable structures, possessing higher natures than its own. It carries its freight of living creatures, like a useful but unconscious ship sailing in the sea of space. The winds and waters do not circulate for their own sake, but to refresh and nourish innumerable myriads of plants and animals. The whole of inorganic nature serves but as the environment of living things and conscious beings. Inorganic matter has no will of its own, it has no separate or private end of existence, but blindly and perpetually obeys the guidance of forces which co-ordinate its masses and direct its movements for the benefit of the living and animate creation.

2. *In the vegetable kingdom inferior forms of life subserve superior forms.*

Lichens and mosses belong to the lowly order of soil-

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producing plants. All plants serve more or less to produce soil by their decay, but certain plants are furnished with special powers connected with their growth and development for the disintegration of solid inorganic materials, and for the accumulation of soil for the benefit of plants of a higher organization.

The tribes of lichens clinging to the face of barren rocks gradually clothe them with the garment of life, and by their disintegrating action and decay provide a surface of soil available for mosses and other humble plants, which in their turn similarly prepare the way for the support of higher vegetable forms. The various tribes of grasses, and all the lower and more perishable plants, including the annuals, serve indirectly for the nourishment of vegetation of larger growth, and more lasting character.

3. *The vegetable kingdom subserves the animal.*

Vegetation affords food, shelter, covering, medicine, moisture, and fragrance to the animal world. It transmutes inorganic materials into organic products suited for the support of life. It clothes the naked earth with loveliness. It purifies the air, and restores its life-sustaining powers. The plant fulfils no separate individual end, but lives and dies for the animal. Insects and cattle devour its leaves, birds its seeds, and larger animals its roots and fruits. The honey secreted by the flower does not serve the flower, but the insect or the bird. The marvellous assortment of medicinal drugs produced by plants is only of use to animals. The plant, as an unconscious instrument, ministers to the wants of higher creatures. It knows nothing of its own beauty; it has no perception of its own fragrance; it gives without generosity or grudging; it blushes without shame; it smiles without gladness; it withers without regret. Its whole existence is a sacrifice rendered to creatures of a loftier kingdom, possessing powers immeasurably superior to its own.

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4. *Lower animal races subserve the interests of higher.*

As there are soil-producing plants, so there are soil-producing animals, or animals devoted to building up solid materials for the basis of higher animal structures, or to the work of disintegrating inorganic matters to serve for the indirect support of higher forms of life. Corals belong to the first of these, and earth-worms to the second. Lower animals serve largely as the food of higher; as insects for birds, the mollusca for the articulata; the graminivora for the carnivora. Animals in general minister to the service of man. The entire animal creation is given into his hand, and subjected to his dominion. He clothes himself with the skins or furs of wild animals, with the wool of sheep, the hair of goats, the plumage of birds, the tissues of the silkworm. He employs animals to draw weights, to bear burdens, to chase his prey, or to defend his property. The fish of the sea, the birds of the air, and the beasts of the field afford food for his table, or otherwise serve and minister to his necessities.

5. *The material world subserves the mental.*

Matter is the instrument of mind. The human hand and all the variety of material weapons or implements which it shapes or wields, are the passive servants of intelligence. In the body the organs of locomotion, the senses and other powers are subservient to the will. Every bone, every tendon, every muscle obeys the guidance of intelligence. In surrounding nature the physical realm is a theatre for the activities of the mind. Further, the solid fabric of the world gives evidence of having been designed and built up for the service of intelligent creatures; the marbles, the coals, the granites, the crystal forms, the chemical elements, the mysterious forces, electric, magnetic, all subserve the ends of mind. Yea, more, the rationality of material nature indicates that it is, as a whole, the instrument of mind. Intelligence shines

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through every fold of its fabric, and controls every motion of its mechanism.

6. *The physical subserves the moral.*

In the union of soul and body the moral nature is designed to exercise dominion over the physical. "When soul and body are together," says Socrates, "nature enjoins the latter to be subservient and obey, the former to rule and exercise dominion." The bodily appetites owe subjection to the dictates of reason, and these, again, to the law of conscience.

7. *In the realm of mind all is subordinated to moral law.*

The understanding recognises the rule of moral law, the existence of duty, the sovereignty of conscience. Conscience, or the moral sense, the faculty which perceives and commands right, which condemns and prohibits wrong, is placed in man's nature to be his proper governor, "to direct and regulate all under principles, passions and motives of action." Reflection or conscience has a right to supremacy in human nature.

"That principle," says Butler, "by which we survey and either approve or disapprove our own heart, temper, and actions, is not only to be considered as what is in its turn to have some influence, which may be of every passion, and the lowest appetites; but likewise as being superior, as from its very nature manifestly claiming superiority over all the others; insomuch that you cannot form a notion of this faculty—conscience, without taking in judgment, direction, superintendency. This is a constituent part of the idea of the faculty, and to preside and govern, from the very constitution of men, belongs to it. *Had it strength as it has right, had it power as it has manifest authority, it would absolutely govern the world.* As the idea of a civil constitution implies in it united strength, various subordinations under one direction, that of the supreme authority, the different strength of each particular member of the society not coming into the idea; whereas, if you leave out the subordination, the union, and the one direction, you destroy and lose it. So reason, several appetites, passions and affections, prevailing in different degrees of strength, is not that idea or notion of human nature; but that nature consists in these several principles considered as having a natural respect to each other, in the several passions being naturally subordinate to the one superior principle of reflection or conscience. Every bias, instinct, propension within, is a real part of our nature, but not the whole. Add

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to these the superior faculty, whose office it is to adjust, manage, and preside over them, and take in this its natural superiority, and you complete the idea of human nature." For "there is a superior principle of reflection or conscience in every man, which distinguishes between the internal principles of his heart, as well as his external actions, which passes judgment upon himself and them; pronounces determinately some actions to be in themselves just, right, good; others to be in themselves evil, wrong, unjust. Which, without being consulted, without being advised with, magisterially exerts itself, and approves or condemns him, the doer of them, accordingly; and which, if not forcibly stopped naturally and always, of course, goes on to anticipate a higher and more effectual sentence, which shall hereafter second and affirm its own."

VIII. Continuity of the Natural System with the Revealed.

Revelation exhibits the restoration and establishment of the supremacy of the moral law.

Herein it crowns the system of nature with perfection and completeness. The law of subordination leads up, step by step, to the supremacy of the moral law. But though in the world system the moral law is supreme by *right*, it is not supreme in *fact*. Its rule is disregarded and overthrown. The Bible unfolds the plan, and traces the story of *the restoration of its supremacy*. The order followed in securing this result includes:—

1. The authoritative republication of the moral law.

2. The historic demonstration of its inability to produce the holiness it commands.

3. The shadowing and predicting of the mediatorial method by which God designed to accomplish the required restoration.

4. The perfect fulfilment of the moral law, and satisfaction of its righteous claims, by the Son of God in human nature.

5. The restoration of the supremacy of the moral law in the hearts and lives of his redeemed and renovated people, who "walk not after the flesh but after the Spirit."

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The Bible is the story of a rebellion vanquished and subdued. It is the account of the victory of the Divine goodness. In its course evil is overcome by good. The Cross conquers. Love overcomes. The hand that holds the sceptre was pierced on Calvary. The universe worships at the feet once fastened to the shameful tree. The anthem of its praise is, Worthy the Lamb! Through Jesus Christ all things are subjected to God. And when that subjection is complete the Son Himself shall give up the Kingdom to the Father, "that God may be all in all."

Thus the Natural and the Spiritual form ONE SYSTEM. One law of subordination reigns throughout.

1. Inorganic nature subserves the organized world.

2. In the vegetable kingdom inferior forms of life subserve superior forms.

3. The vegetable kingdom subserves the animal.

4. Lower animal races subserve the interests of higher.

5. The material world subserves the mental.

6. The physical subserves the moral.

7. In the realm of mind all is subordinated to moral law.

8. Moral law, though supreme in the world by *right*, is not supreme in *fact*.

9. *Revelation exhibits the restoration and establishment of the supremacy of the moral law.*

10. Revelation further traces the progressive subjection of "all things" to Christ, by whom the moral law is established, and through Christ to God, for "He must reign till He hath put all enemies under His feet."

The Revealed system is thus in strict *continuity* with the Natural, and rests on the immovable rock of man's moral nature, and the indisputable facts of his history and condition. Conscience is indestructible. The moral law written in the human heart abides for ever. The system which restores its supremacy is self-evidenced as Divine.

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SEC. II. CENTRALIZATION IN REVELATION.

Having traced the prevalence of the Law of Centralization in Nature, we shall now attempt to show its supremacy in Revelation. The Bible as a Revelation, and the redeeming work which it unfolds, are alike centred in Christ.

I. *The Bible is the Book of Redemption.* Its theme is the restoration of a ruined world. It exhibits this restoration as the work of God. It unfolds the various acts of Providence by which it is accomplished. It traces the work from small inconspicuous beginnings to far-reaching, all-embracing results. The range of the Bible is from Paradise lost to Paradise regained; from the creation and fall of man, to the new heavens and earth glorified by the presence of the new Jerusalem.

II. *The Bible is characterized by the Unity of its Theme.*

It unfolds a series of acts, all contributing to one design or end. This is the more remarkable on account of the variety in its authorship. Had the Bible been written in one age, or by one person, its unity might not so much surprise us. But the Bible is a collection of books which were written by different persons, in different languages, in different lands, and at different times. Seventeen centuries were employed in its composition. The subjects it embraces are so numerous as to give it a cyclopædic character. Yet from first to last that marvellous collection of books is occupied with one subject, animated by one Spirit, directed to one object or end.

III. *The Bible history of Redemption presents a harmonious, comprehensive series of Providential Acts.*

The Bible traces the history of Redemption from the fall of man to the end of the world. It unfolds the progress of

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a saving work of God not only in individual souls—a work continually repeated—but in the human race as a whole. It describes the way in which Redemption is carried on in the world, "by many successive works and dispensations of God, all tending to one great effect, united as the several parts of a scheme, and all together making up one great work. Like a temple that is building; first, the workmen are sent forth, then the materials are gathered, the ground is fitted, and the foundation laid; then the superstructure is erected, one part after another, till at length the top-stone is laid, and all is finished."[1]

IV. *The Person of the Redeemer is the Centre of Revelation.*

The Bible contains two Testaments: the Old and the New. Both relate to Christ. The old Testament is His anticipation; the New Testament is His story. He stands between the two, at their meeting-place, as the goal of the one, and the spring of the other. All the streams of revealed Truth flow either to Him or from Him. Like the faces of the cherubim looking to the mercy-seat, the faces of Prophets and Apostles are turned to Him; Moses, Isaiah and Daniel in the Old Testament, equally with Peter, Paul and John in the New. The Law and the Prophets lead to Him; the Gospel shines from Him. Of the histories, doctrines and prophecies in both Testaments He is the living and luminous centre.

V. *The Mediatorial Principle is the Centre of Theology.*

Theology is the science of Religion. Christian theology is the science of the Christian Religion. "Each distinct science," says Dr. Henry Smith, "has some supreme principle to which its subordinate classifications are referred: it becomes a science only *when it has seized its central idea.*"

[1] Edwards, "History of Redemption," Introd.

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The history of Theology shows "a series of attempts to obtain such a principle as an independent basis." The centre in Christian Theology is the Mediatorial principle. The centre of the Christian system is neither God nor man, but the God-man—the Mediator. Christianity is the religion of reconciliation. "All religion is union between God and Man." But "the religion of the Bible is a re-union, a re-instated fellowship." In the accomplishing of this reunion, or reconciliation, Jesus Christ is the sole Mediator. "God was in Christ, reconciling the world unto Himself." Hence the central idea in Christian Theology is Mediatorial.

This important fact was very ably exhibited by Dr. Henry Smith, one of the greatest theologians America has had of late years, in the inaugural address which he delivered in 1855, on the occasion of his induction into the chair of systematic theology in the Union Theological Seminary, New York. The title of his address was "The idea of Christian Theology as a system." Dr. Smith acknowledges in its course his indebtedness to that greatest of all American theologians, Jonathan Edwards, whose work on "The History of Redemption" evidently suggested the classification which he follows. Of Edwards he says, "We have not looked upon his like again; simple yet profound; subtle and comprehensive; humble yet ardent; of an intense spirituality, and the keenest polemic sagacity." Not even Augustine or Calvin seized as definitely as Edwards did the central idea of the Bible Revelation. By Edwards more than by any other, "All of God's works and ways, all theology and all history were exhibited as *centring* in the redemption that is in Christ Jesus." Following the line of thought traced by Edwards, Dr. Smith arranges the various subjects in Theology under the following three divisions:—

1. The *antecedents* of Redemption.
2. The *purchase* of Redemption.
3. The *application* of Redemption.

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The importance of the theme, and the ability with which Dr. Smith has treated it, justify our presentation of the following passages from his address.

"In the fact of *the Incarnation of the Son of God for our Redemption* may be said to be the grand principle of the Christian faith. This principle gives us the specific idea of the Christian system as distinguished from other religions, and from mere ethics. Here it is on its independent basis, as a rock, as a tower, as a refuge, as the city of our God.

"To Christ, as Mediator, all parts of theology equally refer. He is both God and Man, and also the Redeemer. The logical antecedents of His mediation are, therefore, the doctrine respecting God, the doctrine respecting Man, the Fall, and consequent need of Redemption, and also that Triune constitution of the Godhead, which alone, so far as we can conceive, makes Redemption by an Incarnation to be possible. Thus we have the first division of the theological system, *the Antecedents of Redemption*, which is also first in both the logical and historical order. Its second and central portion can only be found in the Person and Work of Christ, his one Person uniting humanity with divinity, in the integrity of both natures, adapting him to his one superhuman work, as our prophet, priest, and king, making such satisfaction for sin, that God can be just, and justify every one that believeth; and this second division of the system follows the first in both the logical and historical order, giving the peculiar office of the Second Person of the Godhead, *the Purchase of Redemption*, the Christology of theology. And in like manner the same mediatorial idea passes over into the third and last division of the system, which treats, in proper logical and historical order, of *the application of the redemption* that is in Christ, to the Individual, to the Church, and to the History and final Supremacy of the Kingdom of God, both in time and eternity. Union with Christ through the Holy Spirit is here the dominant fact; His union with the Individual, whence justification, regeneration, and sanctification, for our life is hid with Christ in God; His union with the Church, which is His body, here, as Gerhard says, 'Like Christ subjected to the Cross, that it may in the future life with him be glorified.' And this scheme of Divine realities, and not of mere abstract doctrine, is ultimately to be referred to the counsel of Him, of whom, through whom, and to whom are all things. It gives us the true end of God in creation, which can only be, in any profound philosophical, not to say theological aspect, the making the essential glory of the Triune God to be extant and manifest, in space and time, in a system which subordinates happiness to holiness, and man to God.

"When we thus claim that the central idea of the Christian system,

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which binds its parts together in a living unity, is to be found only in Christ, we do not of course mean that this is a principle in the sense that the rest of the system is to be logically deduced from it, as when in mathematics from the definition of a circle all deductions about it are derived; nor yet, that in the order of time Christ precedes all; but simply, that *the mediatorial principle is the centre of unity to the system*, to speak with Nitzsch, 'its middle term.' We mean that all parts of theology, as already indicated, can be best arranged by its light; all that goes before leads to it, all that comes after is its application. *In Redemption prepared, purchased, and applied*, we have the whole of Christian theology."[1]

VI. *The central facts in Redemption are the death and resurrection of Christ.*

Jesus Christ, the Son of God, died for our sins, and rose again,—these are the two central facts in the work of Redemption.

These facts form the core of the gospel of salvation. The Apostle Paul puts them prominently forward in his first Epistle to the Corinthians, as representing the very essence of the gospel which he preached, and by which men were saved. I declare, he says, the gospel which I preached, which you received, wherein you stand, by which you are saved,—"*that Christ died for our sins* according to the Scriptures, and that he was buried, and *that He rose again* the third day according to the Scriptures." This remarkable summary of gospel truth should be linked in our thoughts with the opening sentences in the same Epistle, grouped around the words, "*We preach Christ crucified*," and "*I determined not to know anything among you save Jesus Christ and Him crucified*." Among you, the wise and philosophic Greeks, you who seek after wisdom, I determined to know no theme but this! Foolishness to those who perish, this is the wisdom of God. And this is "the testimony of God." His message to mankind is the folly of the Cross. To destroy the wisdom of the wise He saves men by the preaching of

[1] "Faith and Philosophy," Dr. Henry B. Smith, pp. 137–8.

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"foolishness." But "the foolishness of God is wiser than men," and His weakness "stronger than men." The memorable summary of gospel truths in 1 Corinthians xv. should also be connected in our thoughts with the solemn, important passage in the eleventh chapter of the same Epistle as to the ordinance commemorating the death of our Lord. In both passages Paul delivered that which he had "received" from the Lord. He had received the gospel of the Cross, and the ordinance commemorating the Cross, and he delivered them as he received them. He made no change. He added nothing to them. He took nothing from them. He did not transform "the Lord's supper" into the sacrifice of the mass, nor the minister into a priest, nor the table into an altar. He delivered the ordinance as he had received it. On the other hand, he did not degrade the gospel into a philosophy, or drag it down to the level of a doctrine of ethics, a mere message of morality; no, he delivered it as he received it, "*that Christ died for our sins* according to the Scriptures, and that he was buried, and *that He rose again.*" Yes, that He rose as well as died; rose as the Head and Life of a new race of sons of God, indwelt by the powers of the Spirit of Truth and Love and Immortality. That Christ *died to atone*, that He *rose to quicken*, these are the cardinal doctrines of the Christian faith. These are the two chief pillars in the temple of God. These are the bases of the entire spiritual structure. Jesus died, and rose! He died to make an end of sin. He rose to begin in us a life of righteousness which shall never end.

VII. *The New Testament has a threefold doctrinal and historic division or progress.*

In the order or progress of Redemption unfolded in the New Testament, there are three successive stages connected with

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1. The PERSON and atoning WORK of Christ.
2. The formation of HIS BODY, or Church.
3. The manifestation of HIS KINGDOM.

These three New Testament stages correspond in their order and significance with the three Old Testament stages in the typical Levitical system connected with the great feasts of Passover, Pentecost, and Tabernacles.

The religious assemblings of the people of Israel were regulated by these feasts from the time of Moses to Christ. The law commanding this was explicit. "Three times thou shalt keep a feast unto Me in the year. Thou shalt keep *the feast of unleavened bread:* (thou shalt eat unleavened bread seven days, as I commanded thee, in the time appointed of the month Abib; for in it thou camest out of Egypt: and none shall appear before Me empty :) and *the feast of harvest*, the firstfruits of thy labours, which thou hast sown in the field: and *the feast of ingathering*, which is in the end of the year, when thou hast gathered in thy labours out of the field. Three times in the year all thy males shall appear before the Lord God" (Exod. xxiii. 14–17). So in Deuteronomy: "Three times in a year shall all thy males appear before the Lord thy God in the place which He shall choose; in *the feast of unleavened bread*, and in *the feast of weeks*, and in *the feast of tabernacles*."

The 23rd of Leviticus gives us full information as to the dates and detailed order of these feasts. It is deeply interesting to observe that not only did the occurrence of these feasts regulate the journeyings in "the days of His flesh" of Incarnate Deity, but that the first and second corresponded in their times with the accomplishment of His death and resurrection, and the advent of His Spirit. Our Lord suffered on the day of Passover. He rose from the dead on the day following the passover of the presentation of the wave sheaf first fruits offering, the sixteenth of Nisan, the "morrow after the Sabbath" (Lev. xxiii. 11). And the

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advent of the promised Spirit took place seven weeks later, on the day of Pentecost. Thus the three greatest events in Redemption history, the *death* and *resurrection* of Christ and the advent of the *Spirit*, were foreshadowed as to their nature, object and times, by divinely appointed feasts of the Levitical economy. The parables and prophecies of the New Testament connect the typology of the third and final feast, the "feast of harvest," with the events of "the end of the age."

Harmoniously with this threefold order the New Testament presents, first, in *the Gospels* the facts as to the Person and work of Christ, whose manifestation on earth terminated in His death and resurrection, which coincided with the feast of Passover. Next, in *the Acts and the Epistles*, the New Testament traces the formation and growth of His body, the Church, through the action of the Spirit whose Advent took place on the day of Pentecost. Finally, it foretells in *the Apocalypse* the manifestation of His Kingdom foreshadowed in the palm-bearing triumphs of the feast of Tabernacles. The existence of this remarkable order in the New Testament has been stated with great clearness and beauty in the Bampton Lectures for 1864, by the Rev. T. D. Bernard, though he seems to have overlooked its connection with the order of the feasts of the Levitical economy.[1]

"Lift up your eyes," says Bernard, "on this monument of a distant age which you call the New Testament. Behold these remains of the original literature of a busy Jewish sect; these occasional writings of its leaders, emanating from different hands, and gathered from different localities. They are delivered to you, collected and arranged, though by means which you cannot ascertain. They are before you now, not as accidentally collected writings, but as one book; a design complete, a body organized, and pervaded by an inward life. The several parts grow out of and into each other with mutual support, correlative functions, and

[1] We heartily recommend Bernard's Lectures on the Progress of Doctrines in the New Testament to students of the Scriptures. Clear, yet deep and comprehensive scholarly and spiritual, these Lectures have an exceptional value.

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orderly development. It is a 'whole body fitted jointly together, and compacted by that which every joint supplies, according to the effectual working in the measure of every part, making increase of the body to the building itself up' in truth."

It begins with the person of Christ, and the facts of His manifestation in the flesh, and the words which He gave from His Father; and accustoms us by degrees to behold His glory, and to discern the drift of His teaching, and to expect the consequences of His work. *It passes on to His body the Church*, and opens the dispensation of His Spirit, and carries us into the life of His people, yea, down into the secret places of their hearts; and there translates the announcements of God into the experiences of man, and discovers a conversation and a life which is hid with Christ in God. It works out practical applications, and is careful in the details of duty, and provides for difficulties and perplexities, and suggests the order of Churches, and throws up barriers against the wiles of the devil. *It shows us things to come*, the course of the spiritual conflict, and the close of this transient scene, and the coming of the Lord, and the resurrection of the dead, and the eternal judgment, and the new creation, and the life everlasting. Thus it is furnished for all emergencies, and prepared for perpetual use. It dominates the restless course of thought, and is ever being interpreted by experience and events. It is an authority which survives when others perish, and a light which waxes when others wane. By it, as the instrument of God for the education of men, nations are humanized and Churches sanctified; and yet more real and lasting than these are the results which it secures. An elect people is being gathered from among us, and an eternal Church prepared, which shall supplant all transient and provisional societies in that day for which the whole creation waits." [1]

VIII. *The three steps in the progress of New Testament doctrine and history correspond with stages in the gathering together of all things in Christ.*

The three assemblings of all Israel connected with the feasts of Passover, Pentecost, and Tabernacles, correspond with the three stages in the gathering together of all things in Christ, connected with His Cross, the Advent of His Spirit, and His second coming in His kingdom.

Christ throughout is the Centre of Unity.

First, *His Cross* is the potent magnet of attraction to a

[1] "Progress of Doctrine in the New Testament." Bernard. "Bampton Lect. for 1864," pp. 30, 31.

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perishing world. He died "to gather together in one the children of God which were scattered abroad" (John xi. 52). Just before His death on the Cross He uttered the solemn and touching prediction, "I, if I be lifted up from the earth, will draw all men unto Me." As a matter of fact, men of every position, character and nationality, of every clime and age, have been drawn to Him by the power of His Cross. Their redemption unites the redeemed to the Redeemer and to each other.

Secondly, *the outpouring of His Spirit* produced the marvellous living unity of the Pentecostal Church. Under the influence of the Spirit, "the multitude of them that believed were of one heart and of one soul" (Acts iv. 32). The effusion of the Spirit was subsequently granted to the Gentiles (Acts x. 45), and became the spring of the unity and fellowship enjoyed by the universal Church. "By one Spirit are we all baptized into one body, whether we be Jews or Gentiles, whether we be bond or free; and have been all made to drink into one Spirit" (1 Cor. xii. 13). The Church is charged to "endeavour to keep the unity of the Spirit in the bond of peace." There is "one body," the mystical body of Christ, the body of which He is the Head, and His people the members. Inhabiting that one body there is "one Spirit," even the very Spirit which descended on Christ, which abode on Him, which filled Him, which flowed from Him. The oneness which exists between the risen and ascended Redeemer and the redeemed is set forth in Scripture by illustrations drawn from the three realms of nature—the inorganic, the organic, and the moral worlds. (1) That oneness is represented by the inorganic union of the stones in a temple. Christ risen and glorified is the chief corner stone of the foundation of that Temple in which each believer is a living stone, built on Him. (2) By the organic union of vine and branches, head and members. Christ risen and living for evermore is the True Vine, in which all believers

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are branches, drawing their vitality and fruitfulness from Him. He is also the Head of the body in which all believers are members, united to Him and to each other by a common life, indwelt by a common Spirit, connected by joints and bands, and diversities of gifts and mutual ministrations, subject to His guidance and control, and growing continually to the "measure of the stature" of His fulness. (3) By marriage union. Christ risen and glorified is the Husband of His Church. He has loved it, and given Himself for it, that He might sanctify and present it to Himself a glorious Church, "not having spot or wrinkle, or any such thing, but holy and without blemish" (Eph. v. 25–32). While the preaching of the Cross has drawn together the millions of the outward Church, the gift of the Spirit has produced the inward unity of the spiritually renewed.

Thirdly, the manifestation of Christ in His kingdom and glory will be, according to the testimony of prophecy, the means "in the dispensation of the fullness of time," by which God the Father will *gather together in one all things in Christ, both which are in heaven, and which are on earth, even in Him*" (Eph. i. 10). When Christ returns He will bring with Him the innumerable multitudes of the saints who now "sleep in Jesus." Then shall the saints who are alive and remain to the advent be changed and caught up together with the risen saints to meet the Lord in the air; "and so shall we ever be with the Lord." Thus, with the Coming of Christ prophecy associates "our gathering together unto Him" (1 Thess. iv. 13–18, and 2 Thess. i. 1). "The Lord my God shall come, and all the saints with Thee" (Zech. xiv. 5). "Behold, the Lord cometh with ten thousand of His saints" (Jude 14).

At the sounding of the seventh trumpet there are "great voices in heaven, saying, The kingdoms of this world are become the kingdoms of our Lord, and of His Christ, and He shall reign for ever and ever" (Rev. xi. 15).

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The kingdom of Christ will not be confined to the redeemed of the human race, but *will unite heaven and earth under one government*, and in one sacred and blissful fellowship.

"As the Church," says Neander, "is a seminary for the heavenly community, in which its members are training for their perfect development, it appears even here below as a part of a Divine Kingdom, not confined to the human race, but comprehending also a higher spiritual world, where that archetype to the realization of which mankind are now tending, is already realized. The knowledge of God, according to the comprehensive views of Christianity, is represented not merely as the common vitalizing principle of the human race, but as *a bond by which mankind are united with all the orders of beings in a higher spiritual world, in one Divine community*, according to that universal idea of the kingdom of God which is presented in the Lord's prayer. Thus Paul represents 'God the Father of our Lord Jesus Christ,' not merely as the common Father of mankind, but also as Him after whom 'the whole community in heaven and on earth are named' (Eph. iii. 15). By sin men were estranged, not only from God, but from that higher spiritual world in which the kingdom of God is already realized. As Christ, when He reconciled men to God, united them to one another in a Divine community, broke down the wall of partition (Eph. ii. 14) which separated them, and joined Jews and Gentiles in one body, which is animated by Himself as their head; so also, while men are brought back to communion with God, they are connected with all those who have already attained that degree of perfection in the kingdom of God to which the Church on earth is aspiring. In this respect Paul says that Christ, in making peace, has united all things in heaven and on earth in one Divine kingdom" (Col. i. 2).[1]

IX. *The central principle in the entire work of Redemption is the principle of Love.*

The central Person in the Bible is Christ; the central principle is Love; the love revealed in Him.

When the eloquent Christian philosopher, Adolph Monod, of Paris, was on his death-bed, he gathered round him some of the members of his Church, that they might commemorate the dying love of Christ in the breaking of bread. On the last of these occasions, when too weak from suffering to do more than speak a few broken words, Adolph Monod uttered a memorable sentence, embodying the sum and substance of

[1] Neander, "Planting of Christianity," i., 503.

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his faith and teaching. Raising himself up with solemn emphasis he said:—"*God has loved us, this is the whole gospel; let us love God, this is all its moral.*"

Yes, both the gospel and its moral are included in love. For what is the gospel but "God so loved"? and what its moral but that "we love Him because He first loved us"? For love to Him is the spring of all obedience.

Well has it been said, "*Christianity is only love revealed under its highest form.*"[1] And that highest form of love has the power to produce its own image in the heart which perceives it. In this lies the very core of Christianity. "The *essence* of all true religion," says Edwards, "is in holy love, and in *this Divine affection*, and habitual disposition to it, *that light* which is the foundation of it, and those things which are *its fruits*, consists the whole of religion."[2]

Love is the sum of both the law and the gospel. It is the old command as well as the new revelation. God made man in His image, and being love Himself, said, "Thou shalt love." On this Divine command, in its twofold bearing, the command to love God and man, hang "all the law and the prophets." Herein is the whole of duty. Love worketh no ill, but only good, hence, "love is the fulfilling of the law." But the command to love could not produce love. An example was needed, and more than that, a *motive*. *That motive is found joined with example and precept* in the words of Jesus Christ, "A new commandment I give unto you, that ye love another, *as I have loved you.*"

CHRIST'S NEW COMMANDMENT.

Precept. "Love one another."
Example. "As I have loved you."
Motive. "I have loved you."

"A new command," new not in its nature, but in its spring,

[1] Vinet.
[2] Edwards, "Works," vol. i., p. 240.

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its object, its measure. This is the love that seeketh not its own; that bears all things, believes all things, hopes all things; never faileth. Amid the perishable, it proves enduring. Prophecies shall fail, knowledge shall vanish, yea, heaven and earth shall pass away, but Faith, Hope, Love shall remain for ever; and of these three immortal graces the greatest is love, for God Himself is love.

The source of love is not the hills of heaven, but the heart of God. Wherever God is, love is, for God and love are one. Love fills immensity, and inhabits eternity, and its name is holy. Love rules the universe. Love redeems the lost. In its greatness it stoops that it may raise the low. In its grace it suffers to save. Jesus Christ is but incarnate love; love which has come down from inaccessible heights, clothed with the lowly vesture of humanity. Love was His motive, love His message, love His precept, love His passion, love His reward. The magic of His might is love. The heaven to which He leads is love. Love is the law of angels. Love is the light of the New Jerusalem. Love is the old law of heaven, older than the everlasting hills, newly written in the hearts of God's redeemed. Love is the theme of the Bible; the soul of its unity; the root that bears its branches, the fruit upon its boughs. Love is the bond of the moral universe! the mighty law of gravitation which unites the beings of which it is composed; the sun of its system; the Alpha of its Genesis; the Omega of its goal.

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CHAPTER II.

CENTRALIZATION IN THE RELATION OF THE NATURAL TO THE REVEALED.

THE law of centralization not only prevails in the Natural and in the Revealed, viewed separately, but in the relation of the one to the other. The Natural is centred in the Revealed.

We shall now attempt to trace this relation as exhibited in the *Analogies* and *Adjustments* connecting the Natural with the Revealed.

I. LAW OF ANALOGY.

Analogy is an element of Unity. It is unity without sameness ; unity in variety. Analogy is a mode of relation. It is a bond of connection. It evinces the reign of law. Analogy of form or order is equivalent to identity of law.

The position of Analogy in Nature and Revelation is of primary importance. Analogy binds together the various Laws and Phenomena of Nature. It unites the several parts of Revelation, and it closely and inseparably connects the Natural with the Revealed.

Much has been written on the subject, and yet "the Great Argument from Analogy is far from being exhausted. It is fresh as ever, and ready to be applied to every new phase of error. It is applicable to all the great religious questions which engage the thoughts of educated men in this era of

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transition—this age of critical doubt and restless speculation. The reason is clear,—NATURE *and* SCRIPTURE, *the two standing witnesses for God, survive all vicissitudes of human opinion*, and, like the greater and lesser lights in the firmament, remain serene and stable, whatever passing clouds may, for a time, envelop them. Their consentient testimony, when they speak the same truths, and their analogy, when they teach different lessons, can hardly fail to confirm our belief in the Divine origin of both."[1]

We shall attempt in the present chapter to show the prevalence of the Law of Analogy (1) in Nature; (2) in Revelation; and (3) in the mutual relation of the Natural and Revealed.

Evidence will be presented for the view that the Archetypes of the Natural exist in the Revealed. "The senses place before us the characters of the book of Nature; but these convey no knowledge to us till we have discovered the alphabet by which they are to be read."[2] The alphabet of the book of Nature can only be found in the book of Revelation. A knowledge of the Archetype is necessary in order to the interpretation of its corresponding Types.

As related to the Revealed Archetype, Analogies are Centralised. The Analogies connecting the Natural with the Revealed form a Hierarchy, or ascending series, in which lower are subordinated to higher, the whole converging in a Supreme and Central Archetype—the Author, Architect, and Head of all things.

[1] "Analogy a Guide to Truth and Aid to Faith." Dr. Jas. Buchanan, p. 41.

[2] "Novum Organon Renovatum." Whewell, Aph. 2.

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SECTION I.—ANALOGY IN NATURE.

ANALOGY is "an agreement or likeness between things in some circumstances or effects, when the things themselves are different."

The principles of architecture illustrate the nature of analogy. In each style of architecture—the Egyptian, the Grecian, the Roman, the Byzantine, the Norman, the Gothic, the Elizabethan—there is a certain *prevalent type;* in each, one leading pattern of structure is exhibited or realized in many analogous forms. The rounded shape, for example, of Norman arches is in harmony with the round-headed openings in Norman masonry; and similarly the pointed arches, pointed windows, and pointed doors of the Gothic style agree. The realization of the typical forms is endlessly varied, according to special objects or exigencies; but, however varied, *the type* can always be distinctly recognised. Analogy prevails.

This interesting feature, which lends such harmony to the architectural works of man, can be clearly traced in Nature. In the vegetable and animal kingdoms there are leading types of structure. Sea-weeds are of one type, ferns of another, grasses of another. Vertebrates, such as the fish, the reptile, the mammal and the bird, differ widely in many ways, and yet exhibit the most striking analogies in the plans of their construction. Plants and animals, though broadly contrasted, possess analogies in their modes of growth, organization, reproduction, etc. The objects differ, the forms vary, but the plans of construction, or modes of operation, are linked by unmistakable resemblances.

Analogy in Nature occupies the place of a Universal Law.

Every natural object conforms with more or less precision to "a general plan, pattern or type," and "while constructed after a general model, is at the same time accommodated to

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the situation which it has to occupy, and the purpose which it is intended to serve."[1]

The ready and accurate perception of analogies is of the highest value in the study of Nature. Analogy is a guide to discovery. It is a light conducting from the known and familiar to the unknown and remote. The perception of new analogies, and an intuitive recognition of their use, is a characteristic gift of genius. Guided by this light, Columbus found a new world, and Copernicus what might be called a new universe. And it was the magnificent conception of a far-reaching analogy which led the immortal Newton to connect "the physics of the earth with the hitherto unexplored mysteries of the heavens."[2]

Analogy may be traced in Nature in relation to Form, Number, Time, Method, etc.

I. *Analogy in Form.*

1. The principle of order, or the prevalence of a general plan or pattern, is seen *in the form and character of every mineral substance in nature.*

Minerals have their types. The classification of minerals proceeds upon the principle of the recognition of their leading types. All mineral substances "combining the same type of molecular constitution with analogous forms may be considered as varieties of a single species."[3]

Thus silicates form one group, sulphides another, carbonates another, etc.

Symmetry of form exists to a wide extent in the mineral kingdom. Mountains are largely built up of regular crystals. In the classification of crystals "some one form may be taken

[1] McCosh, "Typical Forms," p. 1.
[2] Dugald Stewart, "Elements of Philosophy," vol. ii. p. 418.
[3] Bauerman, "Systematic Mineralogy," p. 9.

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as a type or primitive form, from which all others of the same system may be easily derived."[1]

Analogous crystalline forms of exquisite symmetry are crowded in the mineral substances which lie around us in every direction. The entire mineral kingdom exhibits the prevalence of order; the shining dust on which we tread has its definite chemical and crystalline characteristics. The fragment of quartz or mica which crumbles beneath our feet has its exact and invariable angles, its parallel faces, its rhombic or oblique formation. Shapeless confusion has no existence in the structure of the mineral world. The rock cries, "It is not in me!" From the granite of their foundations to the snows which crown their summits, the mountains have been built by a power which has shaped their materials with unfailing skill and accuracy, giving the forms of their crystalline structure faultless mathematical perfection, and polishing them with a beauty unattainable by art. In the mineral depths, as in the starry heights, there reigns an all-pervading harmony.

2. The principle of order, or the prevalence of a general plan, pattern, or type, is seen in the form and structure of *every organized object in Nature.*

"Every *living* object," says McCosh, "composed though it be of a number, commonly a vast number, and complication of parts, takes as a whole a definite shape, and there is likewise a normal shape, which any particular tribe of plants or animals assumes, which is called *its type.* Animals and vegetables, it is well known, are classified according to type; and they can be so arranged because *types are really found in Nature, and are not the mere creation of human reason or fancy.* It is because attention is thus paid to type, and because it is so fixed and universal, that it is possible to arrange into groups the innumerable natural objects by which we are surrounded. Without some such principle of unity to guide him, man would have felt himself lost, as in a forest, among the works of God, and this because of their very multiplicity and variety."[2]

[1] Tennant & Mitchel's "Mineralogy and Crystallography," p. 294.
[2] "Typical Forms," p. 23.

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(*a*) Analogy in the structure of plants.

A definite type is impressed on the elements of plant structure. All plants whatsoever, and all the parts of plants, all their organs, and all their tissues are built up of *cells*. The forms of these cells vary to some extent in the different parts of the plant; those of the vascular and woody tissues, for example, being more elongated; but the cell-type, including cell-wall and nucleus, is the same throughout. The lowest plants consist simply of cells separate and independent, while the higher are constructed of cells compacted and arranged with infinite skill and perfect order. It has been calculated that in a cubic inch of a single leaf of the carnation there are upwards of three millions of cells. Cells are frequently seen from the $\frac{1}{300}$th to the $\frac{1}{1000}$th of an inch in diameter.

A definite type is impressed on the form of the plant as such. The typical plant form is an *axis furnished with leaves*. The only typical *appendage* of the vegetable organism is the leaf. Sepals, petals, stamens, and pistils are but modified leaves. Even the cups of the pitcher plant, and hooded or wing-like leguminous flowers, as the sweet pea, are but modifications of the typical leaf.

Definite types are seen in the symmetrical arrangements of the parts of flowers, including their numerical features. Some flowers are dimerous, or of twofold symmetry; others trimerous, or threefold; others tetramerous, or fourfold; others pentamerous, or fivefold, etc.

The most fundamental classification of plants is that by which they are divided into three great groups, representing three distinct *types* of structure: acotyledons, monocotyledons, and dicotyledons.

The cotyledon is the temporary leaf or lobe of the embryo plant. The acotyledons are destitute of this embryonic lobe; the monocotyledons have one cotyledon in the embryo; the dicotyledons have two. Sea-weeds, lichens, mosses, mushrooms and ferns belong to the first and lowest of these three

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types; the great class of *endogens*, including all the grasses and palms, etc., to the second type; while the still larger class of exogens, including most shrubs and all timber-producing trees, belong to the third type. Each of these leading types includes a large number of subordinate types of vegetable formation.

(*b*) Analogy in the structure of animals.

A definite type is impressed on the elements of animal structure. As in vegetables so in animals, the typical element out of which the various parts are built up is the cell. The usual structure of the animal and vegetable cell is the same.

According to Cuvier, Agassiz, and other leading naturalists, there are in the animal world four great types of structure, those of the Radiata, the Mollusca, the Articulata, and the Vertebrata. Agassiz compares the animal kingdom to *a work illustrating four great ideas.* All the different kinds of animals, though numbering many thousands of varieties, are only definite expressions of these four fundamental plans.

The *Vertebrata*, for example, while including the entire range of fishes, reptiles, birds, quadrupeds, and man himself, exhibit but *one leading type of structure.* All vertebrata have a backbone and a skull with lateral appendages, to which the muscles are attached. "*The gradations of a single plan* may be traced from man to the last of the fishes."[1] However different they may appear at first sight, a close correspondence exists between all the parts of animals which belong to the same type. "Not only is the wing of the bird identical in its structure with the arm of man, or the foreleg of a quadruped, but it agrees quite as closely with the fin of the whale, or the pectoral fin of the fish; and all these together correspond in the same manner with their hind extremities."[2]

[1] Cuvier, "Animal Kingdom," p. 20.
[2] Agassiz, "Essay on Classification," p. 25.

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"The same agreement exists between the different systems and their parts in Articulata, in Mollusca and in Radiata, only that *their structure is built on respectively different plans.*"[1]

The *Articulata*, including the numerous variety of insects, together with the various crustaceans and worms, are destitute of the internal bony skeleton characteristic of the Vertebrata. The bodies of Articulata are composed of rings and joints. The frame-work to which the muscles are attached is wholly *external.* The nervous system consists of two long chords, dilated at intervals into ganglia.

In the *Mollusca*, "although the general plan of their organization is not so uniform as regards the external configuration of the parts as that of the vertebrates, there is always an equal degree of resemblance between them in the essential structure and the functions." Destitute of a bony skeleton, "the muscles are *attached only to the skin*, which constitutes a soft, contractile envelope, in which, in many species, are formed *stony plates*, called shells; the nervous system is contained within this general envelope, together with the viscera, and is composed of several scattered masses, connected by various filaments, and of which the principal, placed over the œsophagus, bears the name of brain."[2]

In the *Radiata* the various parts are "*disposed as rays round a centre.*" "They approximate to the homogeneity of plants, having no very distinct nervous system, nor organs of particular senses; there can scarcely be perceived in some of them the vestiges of a circulation."[3] The department of Radiata contains the Echinæ, or sea-urchins, jelly-fishes, and polyps. The latter are fixed like plants to the rocks on which they grow, and include the various corals and sea anemones.

The whole of the animal and vegetable creation exhibits

[1] Agassiz, "Essay on Classification," p. 26.
[2] Cuvier, "Animal Kingdom," p. 21. [3] *Ibid.*, p. 21.

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thus the *prevalence of typical forms.* Each individual animal or plant realizes more or less the features of *an ideal image* belonging to a class or department of nature. The various types of animals and plants, and their numberless modifications, are adapted to discoverable ends. No form or function is seen to be in vain. All is rational. The whole harmonious system silently points in its beauty and perfection to a wisdom and a power beyond itself; to the Being and attributes of an infinite Architect and Ruler, "whose goings forth have been from everlasting."

II. *Analogy in Number.*

Order is conspicuous in Nature in relation to number. The laws of gravitation, light, sound, chemical combination, etc., are all laws of number. Number is prominent in inorganic nature, as in the forms of crystals, and in organized nature, both vegetable and animal. The harmonious ratios of number in nature demonstrate the far-reaching reign of the law of Analogy.

1. The prevalence of a numerical pattern or type is seen in the most universal of the laws of nature, the Law of Gravitation.

The law of gravitation, like that of chemical proportion, is a law of ratio, and thus of Analogy. It expresses "not merely the general fact of the mutual attraction of all matter, not merely the vague statement that its influence decreases as the distance increases, but *the exact numerical rate at which that increase takes place;* so that when the amount is known at any one distance, it may be calculated exactly for any other." [1]

This rate of increase is regulated by the square of the distance separating attracting bodies. It is inversely proportional to the square of the distance.

[1] Sir J. Herschel, "Natural Philosophy," art. 116.

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Thus, a mass weighing a ton will attract all other bodies at equal distance alike; and a mass weighing ten tons will attract the same bodies *at the same distances* with ten times the force. But let the distances be varied, and the attracting force will be found to operate according to the ratio of the inverse square. For the same mass, at *double* the distance, will attract with *four times less force* (2×2 less, the inverse square), or one quarter the force, and at four hundred times the distance with 400×400 times less force, or $\frac{1}{160000}$th of the original amount.

This law or order reigns throughout the universe. It regulates the fall of the stone, the motion of the tides, the revolution of the moon about the earth; of the satellites of Jupiter and Saturn about their primaries; of the planets around the sun; it guides the meteor in its sweep, the comet in its career; it directs the sun in its pathway among the stars, and the stars in their revolutions around each other. Wherever the eye can reach throughout the realms of space, it beholds the same spectacle of *ordered movement*, of harmonious law. One uniform ratio of attraction reigns throughout the universe. There are no jarring discords. All the infinitely various and ever-changing operations of gravity are *analogous*. "Every particle of matter in the universe attracts every other particle with a force directly proportioned to the mass of the attracting particle, and inversely to the square of the distance between them."[1]

2. The Prevalence of a numerical pattern or type is seen in the chemical composition of all natural substances.

Every substance is composed of elements, and every element has a certain numerical type. Elements are composed of atoms, and every atom in an element is characterised by *the same numerical type*. A definite numerical type may be said to be impressed on every atom in the universe.

[1] Herschel, "Outlines of Astronomy," art. 445.

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Atoms combine in various fixed ratios of weight. Every atom has its own combining ratio. These ratios are numerical. A law of definite proportions or equivalents lies at the basis of all the compositions and decompositions of Natural substances. The compositions of all Natural bodies are in determinate proportional weights of their ingredients. This *law of gravimetric ratio* has been demonstrated by quantitative chemical analysis. The elements which form chemical compounds unite in *constant*, *multiple*, *reciprocal* or *compound* proportions. Every element has its own distinctive combining number or ratio.

Water, for example, "not only consists invariably of oxygen and hydrogen, but the weight of oxygen is always eight times greater than that of hydrogen. Whether we obtain it from lake, or river, or sea, or glacier, or iceberg; from rain or snow, or hail or dew; from the structures of plants or the bodies of animals; whether it has been formed ages ago, by the hand of Nature, or is produced on the instant by mingling together its elements in the most random way, *the ratio of its components is immutably the same;* eight-ninths of its weight are always oxygen, and the remaining ninth hydrogen."

"It is the same with every compound. Common salt always contains thirty-five parts of chlorine to twenty-two of sodium; marble, twenty-two of carbonic acid to twenty-eight of lime; vermilion, sixteen of sulphur to one hundred and one of mercury. In virtue of this law *a number can be found for every body, simple or compound, expressing the ratio in which (or in a multiple or submultiple of which) it combines with every other.*"[1]

From this it follows that the order reigning in the universe extends to the more than microscopically minute; that it extends to the molecular constitution of the elements of matter; that it regulates the types of atoms immeasurably and inconceivably diminutive, atoms which almost infinitely transcend the powers of the microscope to exhibit, and which can only be recognised by chemical analysis. The mind is overwhelmed in the attempt to conceive the universal prevalence of such order in the infinitely little!—that the

[1] Wilson, "Religio Chemici," p. 310.

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external order of the infinitely great is infinitely transcended by the internal order of its elements.

In the light of this law, "there is nowhere any fortuitous concourse of atoms," as the Roman poet proclaimed of old; no crash or collision, no strife or warfare when they meet together, as Milton sang in relation to the Embryon atoms of his chaos. The courses of the planets around the sun are not more surely ordered than the movements of these invisible spheres round the centres of force which they obey. Arcturus and Orion know not their places better than each tiny gold or hydrogen atom which adds its weight to swell the sum total of the universe.

"We might liken these atoms to *coins* stamped in Nature's mint, of definite and unchangeable value, with which she pays all the demands the animate and inanimate world make upon her; but this illustration falls much below the dignity of the theme.

"Rather would we have recourse to that old and familiar, but lofty and suitable one, which speaks of this world as a *Temple*; a Temple built by God to His own glory, and for the good of His creatures. And if we did so, we should speak of it not as a Cyclopean wall piled out of unwieldy and misshapen blocks, flung as by Titanic hands together; nor as of a Tower of Babel, where, amidst confusion of tongues, one asked for bricks, and another gave him mortar; but as a structure such as the Hebrew king built to his God, where the house, when it was in building, was built of '*stone made ready before it was brought together*,' and the 'great stones, costly stones, and hewed stones,' were each carved and chiselled to fit its appointed place *before the building began*, so that there was neither hammer nor axe, nor any tool of iron heard in the house while it was in building." [1]

3. While it is important to distinguish, it is desirable also to associate, the foregoing chemical and gravitational laws as *Laws of Gravi-metric Ratio.*

Two distinct principles or laws concerning *relative weight* are impressed on every atom in the universe: a principle of attraction, and a principle of combination. These principles are ordinarily dissociated, and as a result the astronomer is apt to overlook the one, and the chemist the other. The law of gravity concerns *the relative weight of attracting atoms*; the law of chemical affinity *the relative weight of combining atoms.* Both these laws may be embraced in a common

[1] Wilson, "Religio Chemici," p. 330.

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view. Atoms attract each other, and combine together, according to constant *gravi-metric ratios.*

Stating this natural law, or order, more fully, we may say that the elementary atoms of all substances mutually attract each other, and combine together, according to diverse but constant *ratios of weight*; and the weight, whether of the separate atoms, or of the substances arising from the weight-proportioned combinations of the atoms, is in the direct ratio of the product of the masses, and varies inversely as the squares of the distances.

4. *Number in relation to the forms of crystals.*

"Crystals are classified into systems according to the number and character of their axes of symmetry. Six such systems are possible, all of which are represented by natural minerals." [1]

These systems are known as the Triclinic, the Oblique, the Rhombic, the Hexagonal, the Tetragonal, and the Cubic. All the crystals belonging to these systems have definite numerical features, connected with their axes, faces, angles, edges, etc. In crystals of different forms which belong to the same system the numerical features are analogous.

5. *Number in the Vegetable World.*

That harmony of number should be observed in crystal forms, bounded by straight lines, regular angles, and parallel faces, is not so strange; but that it should be also a prominent feature in vegetable forms which are wholly destitute of the mathematical regularity seen in crystals, and whose beauty consists largely in the infinitely various curves characterising their structure, may justly awaken our surprise. Yet such is the case, and to such an extent is numerical symmetry carried in vegetable forms, that the entire system of classification adopted by Linnæus is *based upon the development of this one feature* in the composition of flowers.

[1] Bauerman, "Syst. Mineralogy," p. 11.

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Number is prominent in the arrangement of leaves on the stalk. "A certain series, 1, 2, 3, 5, 8, 13, 21, 34, etc., in which any two numbers added together give the succeeding one, regulates the arrangement of the leaf appendages of plants generally, and in particular of the leaves and the scales on the cones of firs and pines."[1]

6. *Number in the Animal World.*

Number is prominent in each of the four great divisions of the animal world. The number five, characteristic of the highest plants (the Exogens), is similarly impressed on the lowest forms of animals, the Radiata, as in the case of star fishes, Echinæ, Pentacrinites, etc. Among Mollusca and Articulata, numerical types are noticeable in relation to shells, wings, limbs, etc. Insects have a prevailing threefold structure. The typical number in the limbs of vertebrates is four. These four limbs are variously modified in the fins of the fish, the legs and wings of the bird, the legs of the reptile and mammal, and the legs and arms of man. The typical number of the digits in the vertebrates is five. In the mammalia the vertebræ of the neck are never more than seven. "They are always present, so that they are sometimes of great length, as in the giraffe, and sometimes extremely short, as in the whale, which seems to have no neck at all." The horse, hippopotamus, camel, ox, antelope, etc., have seven cervical vertebræ. Man has the same number. The number of free or true vertebræ in the spinal column in the case of man is twenty-four: seven cervical, twelve dorsal, and five lumbar; and the number of bones in the human body is about ten times the number of the vertebræ. The ten digits of the right and left hands have given rise to the decimal system of numeration commonly used throughout the world. Men count upon their fingers, and hence reckon by tens, and in higher numbers by multiples of tens, as hundreds, thousands, etc.

[1] McCosh, "Typical Forms," p. 18.

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III. *Analogy in Time.*

As all things exist in Space and Time, the prevalence of order in one of these realms would argue its probable presence in the other; and further, from their close connection, the same order might be expected to prevail in both. The law of analogy which regulates natural Forms might be expected to regulate also natural Times. Such is actually the case.

1. *The periodic Times of the Planets are controlled by the law of Analogy.*

The periods of the planets are subject to a harmonic law. One numerical ratio prevails throughout, between the periodic Times of the planets and their mean distance from the sun. When the cubes of the distances are divided by the squares of the periods, the quotients are invariably found to be equal.

TABLE OF PLANETARY DISTANCES AND TIMES.

	Distance r.	Period p.	Cube of Distance r^3.	Square of Period, p^2.	Ratio of Cube of Distance to sq. of Period. $\frac{r^3}{p^2}$.
1. Mercury .	0·387	0·241	57,961	580	100
2. Venus . .	0·723	0·615	377,933	3,782	100
3. Earth . .	1·00	1·00	1,000,000	10,000	100
4. Mars . .	1·52	1·88	3,525,688	35,344	100
5. Planetoids	2·50	4·00	15,625,000	160,000	100
6. Jupiter .	5·20	11·86	140,608,000	1,406,596	100
7. Saturn. .	9·54	29·50	868,250,664	8,702,500	100
8. Uranus .	19·18	84·00	7,055,792,632	70,560,000	100
9. Neptune .	30·00	164·60	27,000,000,000	270,931,600	100

2. *Vital Periodicity is controlled by the Law of Analogy.*

It is a well-known fact that the recurrence of certain important changes in the human system is regulated by a law of weeks. From the cradle to the grave, and from the day of conception to the day of death, every man, woman and child of our race is amenable to a law of septenary periodicity.

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Consciously to the one sex, unconsciously, but none the less really, to the other, there is an alternate loss and gain of substance every four weeks. In the human family the period of Utero-gestation is forty weeks, nor do differences of age, climate or circumstances cause any variation in this period. Such is the rule, though it has of course exceptions. Not only are these normal changes subject to a law of weeks, but also those connected with abnormal derangements. From time immemorial it has been observed that fevers, and intermittent attacks of ague, gout and similar complaints, have a septiform periodicity, that the seventh, fourteenth, and twenty-first are critical days.

The law of weeks regulating periodical changes in the human frame extends with certain modifications to the lower animal creation. Dr. Thomas Laycock, physician to the York Dispensary, contributed an interesting series of papers on this subject to the *Lancet* in the years 1842–4. Dr. Laycock summarizes the results of his researches in the following propositions:—

1. That there is a general law of periodicity, which regulates all the vital movements in all animals.

2. That the periods within which these movements take place admit of calculations approximately exact.

3. That the fundamental unit—the unit upon which these calculations should be based—must for the present be considered as one day of twelve hours.

4. That the lesser periods are simple and compound multiples of this unit, in a numerical ratio analogous to that observed in chemical compounds.

5. That the fundamental unit of the greater periods is one week of seven days, each day being twelve hours; and that single and compound multiples of this unit determine the length of this period by the same ratio as multiples of the unit of twelve hours determine the lesser period. This law binds all periodic vital phenomena together, and links the

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periods observed in the lowest annulose animals with those of man himself, the highest of the vertebrata.

IV. *Analogy between Lower Kingdoms and Higher.*

1. There is a remarkable analogy between certain forms in *the mineral and vegetable world.* Many minerals in the process of crystallization assume arborescent shapes resembling those of vegetation. Certain crystals aggregate in moss-like, others in fern-like or feather-like forms. The most commonly observed arborescent crystallization is that which occurs through the action of frost. The leaves of plants are covered in winter with leaf-like crystals of frozen water. Living vegetation, despoiled of its summer beauty, is clothed by the hand of Nature with a garment of lifeless vegetation of almost equal loveliness. The analogy between these arborescent forms suggests the question whether the crystal should be regarded as the parent of the plant. The mineral must in the nature of things have preceded the vegetable; has it produced it?

A careful examination of their various features makes the fact obvious, that however similar in external form, the crystal and the plant are separated by the profoundest differences of structure and character. The crystal is lifeless; the plant is living. The crystal grows by accretion, the plant by secretion. The crystal grows by the external addition of particles, the plant by the internal division of parts; the crystal by the aggregation of particles attracted to certain centres, the plant by the moving forth or exodus of particles from certain centres. The crystal simply attracts elements of its own nature; the plant absorbs, assimilates, and transmutes elements of a nature entirely different to its own. The crystal assumes a definite form and then remains fixed and unchangeable; the plant changes its form continually, grows to maturity, decays and dies. The plant reproduces itself, the crystal does not. Their fundamental differences place them in different king-

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doms. They belong to different worlds. Parental relation between the two there can be none, unless the effect can exceed and wholly transcend the cause. According to universal experience life is always the offspring of life. "No shred of trustworthy experimental evidence," says Tyndall, "exists to prove that life in our day has ever appeared independently of antecedent life."

"A study of the internal arrangement or disposition of the parts of which *organized* structures and *inorganic* bodies are respectively composed," says Carpenter, "demonstrates their essential difference. *Every particle of a mineral body* (in which there is no *admixture* of ingredients) *exhibits the same properties as those possessed by the whole*; so that the chemist, in experimenting with any substances, cares not therefore, except as a matter of convenience merely, whether a grain or a ton be the subject of his researches. The minutest atom of carbonate of lime, for instance, has all the properties of a crystal of this substance, were it as large as a mountain. Hence we are to regard a mineral body as made up of an indefinite number of constituent particles, similar to the whole and to each other in properties, and having no further relation among themselves than that which they derive from their *juxtaposition*. *Each particle* may be considered, therefore, as having *a separate individuality*. The organized structure, on the other hand, whether of a plant or animal, *is made up of a number of dissimilar parts or organs*, each of which has a peculiar texture and consistence; *and it derives its character from the whole of these collectively*. By their action with each other and with external agents, the *life* of the entire fabric is sustained; and hence *there is a relation between its elementary constituents much closer than that of proximity only, namely, that of mutual dependence*; so that, as no one part can continue to exist without the rest, it cannot be regarded as possessing that separate individuality which belongs to the whole system alone. Thus, in the perfect plant, which has roots, stem and leaves, the entire destruction of any one set of organs is fatal to its life; although, as many of these organs are but repetitions of each other, some of them may be removed without permanent injury to it, provided enough are left to maintain its present existence."[1]

"Effects are proportional to their causes, and causes are measured by their effects."[2] As the crystal simply consists of a number of lifeless particles, exactly similar in all

[1] Carpenter's "Physiology," pp. 11 and 12.
[2] Whewell's "Inductive Sciences," vol. i. p. 171.

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respects, it cannot be regarded as the parent of the living plant, which is composed of various and dissimilar elements and mutually dependent organs. Analogous crystal and vegetable forms must therefore be considered *independent though parallel elements in a common plan.*

2. *Analogy between the Vegetable and Animal Kingdoms.*

The analogies here are far more numerous, various and profound. Each plant and animal grows from a cell, and by the addition of cells. In each there are organs of *circulation, respiration, reproduction.* Their modes of reproduction are marked by multiplied and marvellous analogies. The lowest animals are plant-like. Some animals can with difficulty be distinguished from plants.

On taking an extended view of the animal and vegetable kingdoms resemblances are observed of a more general character. Agassiz has shown that animals may be grouped in three great classes analogous in certain leading features with the three great classes of vegetables which we have already indicated.

The fact that animals and vegetables have developed side by side on *these parallel lines* confirms the conclusion already reached as to the existence of design in Nature, or an intelligent plan combining and controlling its various and multiplied details.

3. *Analogies between Man and the Lower Animals.*

Man is the Archetype of the animal creation. "Man is the end towards which all the animal creation has tended from the first appearance of the first Palæozoic fishes."[1]

"The Divine mind," says Professor Owen, "that planned the archetype, also foreknew all its modifications. *The Archetypal idea was manifested in the flesh under divers modifications, upon this planet, long prior to the existence of those animal species that actually exemplify it.*"

[1] Agassiz, "Comp. Physiology," p. 418.

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Instinct in the animal world is a typical anticipation of reason in man. In following the guidance of instinct, the animal acts with a wisdom which is not its own. The bee, though building with mathematical skill, is destitute of mathematical knowledge. In building an arch or a temple, man follows the practical guidance of sciences whose laws he has discovered and explored. Yet in his mechanical constructions, in his social acts, and even in his moral dispositions, man has been foreshadowed by dumb nature from the remotest past!

"Who that has watched," says the eloquent Coleridge, "the ways of Nature with an understanding heart, could, as the vision evolving still advanced towards him, contemplate the filial and loyal bee, the home-building, wedded, and divorceless swallow; and above all, the manifoldly intelligent ant tribes, with their commonwealths and confederacies, their warriors and miners, the husband folk that fold in their tiny flocks on the honeyed leaf, and the virgin sisters in their selfless purity, and not say to himself, Behold the shadow of approaching humanity, the sun rising from behind, in the kindling morn of creation!"

Summary Statement of the Law of Analogy.

The law of Analogy, whose prevalence is illustrated by the facts set forth in this section, may be briefly stated as follows:—

Every object in Nature, animate and inanimate, is constructed after a type; and the forms and functions of earlier and lower classes and kingdoms have a prophetic analogy with those of later and higher; the different plans of structure being related as the parts of a general plan, and the whole of Nature conformed to a common order; marked by the combination of infinite variety with unity; constituting a harmonious system, intelligibly connected in all its parts.

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SECTION II. ANALOGY IN REVELATION.

ANALOGY is as prominent in the Bible as it is in Nature. From the first page to the last, from the types of Genesis to the symbols of the Apocalypse, the Scriptures are as richly crowded and illuminated with patterns or analogies, as are the form-filled spheres of earth and sea and skies.

"Analogy is employed in Scripture," says Dr. Buchanan, "with a copiousness and frequency, a richness and variety, which make it one of the most prominent and characteristic features of Revelation. Divest the Bible of its analogical terms, its natural imagery, its symbolical illustrations, its instructive types and parables, and you deprive it of its peculiar charm,—of all that is best fitted to arrest the attention, to convince the judgment, and to impress the heart. But happily the attempt to do it is impossible; analogy is interwoven with its very texture, and cannot be separated from it without destroying its substance as well as its form."[1]

In its abundant use of analogies the Bible is marvellously adapted to man's mental constitution. Analogies are not only pleasing but needful as instruments of instruction. "Arguments," it has been well said, "are the pillars of a discourse; illustrations are the windows to let the light in." Without argument a discourse is weak; without illustration it is dark. The light with which the Bible is filled streams largely through its "storied windows." The facts of history, the forms of typology, the figures of prophecy, shed their collective glories on its glowing pages, clothing with visible shape and beauty the truths they convey.

1. The language of the Bible is to a considerable extent analogical. Spiritual things are constantly compared, in its pages, to natural things.

The Bible "speaks of God as light, and life, and love; as a sun and shield; as a rock, a refuge, a fortress; as the fountain of living waters; as the horn of salvation; it speaks of His attributes under names borrowed

[1] "Analogy: a Guide to Truth and Aid to Faith." Dr. James Buchanan, p. 135.

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from corresponding perfections in ourselves . . . it speaks of His relations to us as a Father, a Benefactor, a Friend, a Law-giver, a Governor and Judge, a Redeemer, Deliverer, and Saviour; it even speaks of the personal distinctions of the Godhead under the analogical terms of Father, Son, and Spirit. It speaks of all other things in the same way: of sin as a *debt*, and of a *ransom* by which the debt is discharged; as a *crime*, and of the *satisfaction* to justice by which it is expiated; as a state of *bondage*, and of the *redemption* by which the captive is set free; of conversion as a new *birth*, of practical religion as a new *life*; of the Christian's course as a *race*; of the Christian's experience as a *warfare*; of the Christian's success as a *victory* and a *triumph*."[1]

By their employment of such analogies the Scriptures give us a "true and clear," though in certain respects an imperfect or "inadequate conception" of Divine truths. They convey not a full *comprehension*, but a real though imperfect *apprehension* of the truth, such as is suited to our limited faculties in the present state, and sufficient for all the practical purposes of a religious life.[2]

2. Besides employing the language of similitudes, the Bible sets forth Divine truth by means of special or particular "visions, symbols, types, and parables." This system was "adapted to the Church's nonage or minority, for God taught His people as we teach our children, first by sensible and external signs, as we do by pictures and stories, before abstract truths can be apprehended."[3] It is also eminently adapted to a gradual and progressive discovery of the truth as its light is needed by successive generations of mankind.

3. The wide-spread use of typology in the Bible is plainly and repeatedly stated in the volume itself. The Bible employs definite names to describe the analogies which abound in its pages, as τυπος, type; αντιτυπος, antitype; ὑποδειγμα, example, pattern; σκια, a shade, or shadow. The word τυπος, type, connected with τυπτω, to strike, presents the idea

[1] "Analogy." Dr. James Buchanan, p. 136.

[2] *Ibid.*, p. 137.

[3] Charlotte Elizabeth: "Introduction to the Gospel of the Old Testament: a Summary of Samuel Mather on the Types," p. 21.

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of an image or impression struck by a blow; while the word σκια suggests the resemblance of a shadow to the outline of the substance by which it is cast. The Levitical types relate, according to the teaching of the New Testament, to the *true*, the *future*, and the *heavenly*; they are "figures of the true," "shadows of good things to come," "examples and shadows of heavenly things." The history of Israel is declared to have been typical of Christian history and experience. Referring to a series of events in Jewish history, the Apostle Paul says, "all these things happened unto them for types" (τυποι); and again, "these things were our ensamples" (τυποι).[1] Peter tells us that the deliverance of Noah and his family in the ark from the flood was a "figure" of the way of salvation. Paul teaches that the first Adam was "the figure of Him that was to come."[2] We read that the Jewish priests "serve unto the example and shadow of heavenly things, as Moses was admonished of God when he was about to make the tabernacle, for, See, saith He, that thou make all things according to the pattern showed to thee in the Mount." As only the image of an image the Levitical economy was temporary in character. The Tabernacle, including its holy and most holy places, the veil, the sacrifices, the entrance of the high priest within the veil on the Day of Atonement, and other objects and acts in the Levitical economy, are expounded in the Epistle to the Hebrews as figures representing realities connected with the person and work of our Lord Jesus Christ. Old Testament history is New Testament mystery. The Old is full of the New. Historic types, personal types, ceremonial types abound in the pages of Revelation; typical events, typical persons, and typical ordinances crowd the providential scene. The principle which underlies these correspondences is evidently the *prophetic* principle. *Types are silent prophecies.* They unveil the future. They

[1] 1 Cor. x. 6, 11. [2] Rom. v. 14.

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exhibit foresight and Divine direction. They demonstrate plan and purpose, and unfold in a profound and progressive way its nature or character. They hide from the wicked the knowledge designed for the spiritually wise. They link together the various parts of Revelation. They clothe abstract truths in visible forms, and create a harmonious prospect, a pleasing foreground in Revelation, for the contemplation and instruction of heaven-taught minds.

4. There is a harmony and far-reaching progress in the use of Analogy in Scripture of a most impressive description. The theme of Redemption is kept in view from first to last, and the types of successive centuries are made to converge the whole of their light upon it. First the record of the order of Creation is directed so as to pre-figure and introduce the story of Redemption. The work of God in the physical realm is described as proceeding by a series of steps from darkness and disorder to light and perfection. The goal of Nature is man in the image of God, exercising universal dominion, and entering into the Sabbatic rest of his Creator. The typical and prophetic harmony here with the order of Redemption is so obvious as hardly to need remark. The deep, death-like sleep which falls on Adam, who is the "figure of Him who was to come," and the derivation of woman from man, as "bone of his bone and flesh of his flesh," made in his image, even as he in the image of God, enfolds as a type the "mystery" of the relation of Christ to the Church. The introduction of Sacrifice immediately after the Fall and its continuation throughout the whole of Patriarchal and Jewish times sheds a long stream of prophetic light upon the Cross. The marked division of the human family from the very first into the "Natural" seed and the "Spiritual," and the priority in chronological order of the natural, and ultimate supremacy of the spiritual over the natural, are features in Bible typology of peculiar interest. "That was not first which is Spiritual, but that which is

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Natural, and afterwards that which is Spiritual."[1] Again and again we trace this Divine order; we see it in the family of Adam in the relations of Cain, Abel, and Seth; in the family of Abraham, in Ishmael and Isaac; in the family of Isaac, in Esau and Jacob; in the family of Jacob, in Reuben and Joseph; and in the family of Joseph, in Ephraim and Manasseh. We see it in the family of Abraham as embracing the natural seed, or Jewish people, and the spiritual seed, or Christian Church. We see it in the story of the two generations of Israel in the Wilderness, that which fell through unbelief, and that which entered with Joshua into the promised land; and we see it in the counterpart of these in the external body of Apostate Christendom, as contrasted with the spiritual Church of true believers. In all these facts of Bible history there is evidently the presence of analogy. Typical relations expressing the same moral principle or spiritual truth reappear in narrative after narrative. The Apostacies of Patriarchal, Jewish, and Christian times, and the Judgments with which they terminate, are similarly connected by analogy; the Flood with its story of two worlds, the old and the new, with the world that now is, and that which is to come. The Exodus of Abraham, the Exodus of Israel, and the Exodus of the Church, are analogous; the wanderings and the warfare of Abraham's literal seed with those of his spiritual seed. The complex ritual of the Jews, the whole of their Tabernacle and Temple worship, every part of their sanctuary, every vessel, every ordinance, every sacrifice, had according to the teachings of Scripture a typical significance. And the whole course of Jewish history was also typical, its Egyptian, Palestinian, Babylonian or Captivity and Restoration periods, prefiguring the history of the Christian Church, early or Martyr, Mediæval and Reformed. "Known unto God are all His works from the beginning

[1] 1 Cor. xv. 46.

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of the world." Such types as these are silent prophecies evincing Divine foreknowledge and answer in the realm of the Revealed to *the prophetic types in Nature*, as the foreshadowing of the plant by the crystal, of the animal by the plant, and of man by the animal. In both cases the presence of the prophetic element is too evident to be denied, while the scale on which it exists is too vast, and the details of agreement too numerous and varied, for the correspondence to be the result of mere accident, or of the operation of blind, unintelligent tendencies.

Convergence of Analogies.

As the great Archetype of Scripture Types, our Lord Jesus Christ is the Divine Original of which the sacred types are copies.

The types of the Old Testament can only be understood in the light which shines from the Facts and Doctrines of the New Testament; the diverse copies must, in order to be understood, be compared with the one Original; and the various aspects of their correspondences combined by the aid of that Original, which alone comprehends the total wealth of their significance.

Revelation thus exhibits a *Convergence of Analogies.* The several lines of typical biographies, histories, and ordinances meet in a single centre. All converge to a focus—the Person and Work of Christ.

I. *Types relating to the Person of Christ.*

Adam, Abel, Noah, Melchisedec, Isaac, Joseph, Moses, Joshua, Samson, David, Solomon, and Jonah were such. Adam, we are told, was "the figure of Him that was to come." To Moses it was expressly said, "I will raise them up a Prophet from among their brethren, *like unto thee*, and will put My words in His mouth; and He shall speak unto them all that I shall command Him. And it shall come to

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pass, that whosoever will not hearken unto My words which He shall speak in My name, I will require it of him."[1] Joshua, whose name corresponds with Jesus, being its Hebrew form, was, as the dauntless warrior who led Israel into the promised land, an eminent type of "the Captain of the Lord's host," Jehovah the Saviour. The Sacrifice of Isaac, and the deliverance of Jonah, represented from various points of view the death, the burial and the resurrection of the Son of God. The story of Joseph touchingly typified "the sufferings and glories" of Christ in their Jewish and Gentile relations; while the histories of the two greatest kings of Israel, David and Solomon, notably prefigured the militant and triumphant stages in the history of Christ, the true "King of Israel," and "Lord of all."

II. *Types relating to the Offices of Christ.*

The three great offices of Christ, His Prophetic, Priestly, and Kingly offices, were typified by the long lines of divinely appointed Jewish Prophets, Priests, and Kings. The combination and perpetual union of the Kingly and Priestly offices in Christ's person was shadowed forth, according to the teachings of the New Testament, by Melchisedec, who was both "King of Salem" and "Priest of the most high God." How instructive and how touching to behold this typical Priest-King bringing forth "bread and wine," and blessing Abraham, the heir of the promises![2] How solemn and sublime the oath concerning Christ, "Thou art a Priest for ever after the order of Melchisedec."[3]

III. *Types concerning the Work of Christ.*

The whole story of the Redemption of Israel from Egypt was a figure of Christ's redeeming work. The daily work of the High Priest in the Tabernacle or Temple, and his special

[1] Deut. xviii. 18, 19. [2] Gen. xiv. 18.
[3] Ps. cx. 4; Heb. v. 6; vi. 20; vii. 17, 21.

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work on the Great Day of Atonement, the offering of the sacrifices, the sprinkling of the blood on the altar, the entrance within the veil, and the sprinkling of the blood on the mercy seat—these, and a multitude of other objects and actions described in the Old Testament, prefigured various aspects of Christ's work as the Redeemer of the World.

Convergence of Types and Prophecies in Christ.

The Convergence of the Types in the Person and Work of Christ should be connected with the equally remarkable convergence of Old Testament Prophecies in Him. A double light is thus thrown on the central figure of Scripture —the meeting point of Type and Prophecy. *The Convergence, for example, of Chronological Types and Prophecies in Christ* is of the highest importance. The chronological *prophecy* of the "Seventy weeks" leads us to the termination of the five centuries, which reached from the restoration of Jerusalem under the Persians to its destruction by the Romans, and especially to the period which immediately preceded the Roman Destruction of Jerusalem and its Temple, as the time of the predicted Advent of Messiah; it leads us to the last seven years of the foretold 490 years, as the period which would contain the ministry of Messiah; it leads us to the centre of that week of years, as coinciding with the year in which Messiah should be "cut off," and should "make an end of sin," make "reconciliation for iniquity," and "bring in everlasting righteousness"; while, on the other hand, the *Passover Type* leads us to *the month* in the year in which the Antitypical Paschal Lamb was to be slain, the month Nisan; to *the day* on which the great sacrifice was to be offered, the fourteenth day of the month; and to *the very hour* of the day when the victim was to be slain, the hour of three in the afternoon, "between the two evenings." Thus *combining Type and Prophecy, we are led to the general period, or era, to the week of years, to the year, to the month, to the day, and to*

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the hour of the Atoning Death of the foretold and foreshadowed Redeemer. Following these lines, we come to JESUS CHRIST, and to the Cross of Calvary. The independence of the types and prophecies whose chronological periods thus converge in CHRIST gives to their united testimony a value which it would be difficult to overestimate.[1]

CHRIST THE PROTOTYPE OF THE NEW LIFE OF THE REGENERATE.

"The Second Man is the Lord from heaven."[2]

We terminate our brief study of Analogy in Revelation with its highest example. Having shown that the lines of Old Testament Typology converge and meet in Christ, we now point to the fact that the lines of New Testament Typology do the same. Christ is the Prototype of that new humanity whose origin, character, and history are set before us in the New Testament.

1. *Christ is the Prototype of the New Nature and Holy Life of the Regenerate.*

Christ is both the *law* and the *life* of the holy. His new commandment is conformity to His own image. Its fulfilment is through the indwelling of His Spirit in the soul. Christian holiness is simply the imitation of Christ in the power of Christ. It is thus the reproduction of Christ. Christ is the Prototype of moral and spiritual perfection. He is the Second Adam to the race. As the Son of God, and indwelt by the Divine Spirit, He is the type of the new humanity. The regenerate are sons of God and Temples of Deity. God dwells in them and walks in them.

The life which Christ reproduces in His people is the very life which He manifested when dwelling among men. Thus the life of Christ and of the true spiritual Church is con-

[1] See closing chapter on the chronological adjustment.
[2] 1 Cor. xv. 47.

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tinuous. Christ, who lived on earth for three-and-thirty years, fulfilling all righteousness, lives on from age to age *imparting* to men the Spirit in which He so lived, in order to the production of the same moral result. He came down from heaven, not to do His own will, but the will of Him who sent Him. His words were not His own, but His Father's. Of His works He said, "The Father that dwelleth in Me, He doeth the works."[1] His prayer in His agony in Gethsemane with reference to His supreme act of self-sacrifice upon the Cross was, "Not my will, but Thine be done."[2] The prayer which He taught His disciples contained as one of its seven petitions the words, "Thy will be done on earth, as it is in heaven." The condition of entrance into His eternal kingdom was the fulfilment of the Father's will. "Not every one that saith unto Me, Lord, Lord, shall enter into the kingdom of heaven; but he that doeth the will of My Father which is in heaven."[3] The promise of the new covenant, of which He is the Mediator, is, "I will put My laws into their mind, and write them in their hearts."[4] The fact of the fulfilment of that covenant in Christian experience is declared in the memorable words, "It is God that worketh in you both *to will* and *to do* of His good pleasure."[5] "He which hath begun a good work in you will perform it until the day of Jesus Christ."[6] "*Working in you that which is well-pleasing in His sight*, through Jesus Christ; to whom be glory for ever and ever."[7]

The analogy between the life of Christ and that of the regenerate, and the identity of the Spirit in Christ and in the regenerate, are set forth with remarkable clearness and correctness in the following sentences from Godet's "Biblical Studies": "What is the work of the Holy Spirit? It is to impart Christ to us, with everything that is His, and to make Him live again in us, as the grain of wheat which lies dead in the earth *is made by the power of nature to live again in each of the grains in the*

[1] John xiv. 10. [2] Luke xxii. 42. [3] Matt. vii. 21.
[4] Heb. viii. 10. [5] Phil. ii. 13. [6] Phil. i. 6.
[7] Heb. xiii. 21.

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ear. And, on the other hand, by what means does Christ live in us? By the operation of the Holy Spirit. There takes place in the believer, by the power of that Divine Agent, *an effect similar to that which produced the miraculous birth of Jesus Christ.* 'My little children,' said St. Paul, 'of whom I travail in birth again *till Christ be formed in you.*'[1] Our holiness does not, properly speaking, consist in our changing and becoming better *ourselves*; for after fifty years of faithful labour it may happen that all at once we find ourselves, when our own nature gains the upper hand, as bad as we were half a century before; it is rather *He*, He Himself, born and growing in us in such a way as to fill our heart and gradually to drive out our natural self, our 'old man,' which cannot itself improve, and whose destiny is only to perish." "Our holiness is not therefore a mere imitation of that of Jesus, which we realize in ourselves by our own resolutions; *it is actually His own—that which He realized here below through conflicts and sacrifices, and now communicates to us from out of His life in glory.*" "How is this kind of incarnation practically effected, by which Christ Himself becomes our new self? By a process of a free and moral nature, described by Jesus in words which surprise us, because they place His sanctification upon nearly the same footing as our own: 'As the living Father hath sent Me, and I live by the Father: so he that eateth Me, even he shall live by Me' (John vi. 57). Jesus derived the nourishment of His life from the Father who had sent Him, and lived by Him. The meaning of that is, doubtless, that every time He had to act or speak, *He first effaced Himself; then left it to the Father to will, to think, to act, to be everything in Him.* Similarly, when we are called upon to do any act, or to speak any word, *we must first efface ourselves in the presence of Jesus*; and after having *suppressed in ourselves by an act of will every wish, every thought, every act of our own self, we are to leave it to Jesus to manifest in us His will, His wisdom, His power*"—to leave it to Him in the confidence of faith, leaning on Him to do this supernatural work, and thus living "by the faith of the Son of God." "In this lies the secret, generally so little understood, of Christian sanctification."[2]

2. *The history of Christ is the Prototype of the history of the Regenerate.*

The lowly birth of the Church, its humble growth, its spiritual baptism, its witness to truth, its ministry of love, its conflicts with the powers of evil, its temporary defeat, its unjust condemnation, its cruel martyrdom, its joyful resur-

[1] Gal. iv. 19.
[2] Godet: "Biblical Studies," New Test., pp. 187, 190.

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rection, and its glorious reign, have all been typified in the personal history and experiences of our Lord Jesus Christ.

In the Apocalypse the prophetic sketch of the history of the Church resolves itself into *the story of a double conflict* with Satanic power, in the first of which the Church *overcomes*, while in the second it *is overcome*, but from which vanquished condition it rises by the quickening power of the Spirit, and ascends to the symbolical heavens in the sight of its enemies. The actual history of the Christian Church exhibits such a twofold conflict: first, under the cruel persecutions of Pagan Rome in the days of the Catacombs, and secondly, under the even worse persecutions of Papal Rome, chiefly in the time of the Inquisition. It is remarkable that the history of Israel, which the Apostle Paul tells us was a type (τυπος) of that of the Christian Church, exhibits two great analogous conflicts, an initial one under the external oppressions of heathen Egypt, and a later one under the internal persecutions of conjoined Priestly and Kingly Israelitish power become apostate, and warring against the truth and people of the Most High. This twofold conflict is seen in its Prototypal form in the earthly history of our Lord. In His infancy, Herod, representing the purely *civil power*, sought His life, and in the attempt to destroy "the young child," slew all the children in Bethlehem "from two years old and under."[1] From this destruction the new-born child was saved by the flight to the wilderness. Later on *the conjoined ecclesiastical and civil powers* (the latter acting under the instigation of the former) succeeded in putting Christ to a cruel and shameful death upon the Cross. But God raised Him from the dead, and exalted Him to His right hand in heaven. The history of Christ, then, in its twofold conflict, is the Prototype of the history of the Church; while the history of the Church, in its twofold conflict, is the archetype of the history of the

[1] Matt. ii. 16.

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natural Israel. Thus the whole system of revealed Typology *converges to a common centre.* The law of analogy reigns throughout. Not more strikingly or demonstrably does analogy reign in Nature than in Revelation. In Nature the whole system of Typology converges to a primary centre *in man*; in Revelation, *in the Son of Man.*

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SECTION III. ANALOGY OF THE NATURAL TO THE REVEALED.

HAVING shown in the first section of this chapter that analogy holds the place of a universal law in NATURE, and in the second section that it occupies a similar position in REVELATION, we shall now trace in the third section its prevalence in their MUTUAL RELATION. We shall present evidence for the view that the Natural Order is, in many important and fundamental respects, analogous with the Revealed Order; that Nature and Revelation are related as type and anti-type, and that, according to the principle of Centralization, the *Archetypes* of the Natural order are contained in the Revealed.

There are various aspects in which Nature may be viewed. There are the outward physical appearances, the separate phenomena, the general laws, the orderly adjustments, the historic sequences, the inward character of Nature. We may consider Nature in its unsystematic superficial features, or in its true internal system. But in whatever way we view it, we find, on examination, that it exhibits the closest analogy with the Revealed—an analogy so deep, so complex, so far-reaching, as to compel the conviction that the two systems are lower and higher parts of the same great system; and that, as the system of Nature is certainly the work of God, so also must be that archetypal system answering to it, made known to us in the Scriptures.

I. *Analogy of the Physical Order in Nature to the Mental and Moral.*

This analogy is abundantly and universally recognised in the forms of speech employed among all nations.

"By far the larger part of the language which is employed to express mental, moral, and spiritual truths is derived from sensible things; and

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language being a mirror which reflects the unseen process of thought, this fact implies that the mind makes use of material analogies in conceiving, as well as in expressing these truths. It follows that such analogies exist, and are easily discernible, for the use of them is spontaneous and universal; and this implies a real correspondence or adaptation established in Nature, between all its departments, by which provision is made for finding in one of them fit signs and symbols of those things which belong to another." [1]

II. *Recognition and Use of this Analogy in Poetical Language.*

While it is true in a general sense that "as all men reason analogically, so all men conceive and speak analogically," it is true in a special sense of all poets. The poet thinks and speaks *in similitudes*, and the source from which he draws his similitudes, images, or analogies, is the treasury of Nature. The true poet is an interpreter and expositor of Nature. He is no mere idle dreamer, occupied with the deceptive visions of the imagination, but "an ideal painter of the real."

"The poetic differs from the common mind, not in possessing any peculiar faculty which is altogether awanting in the latter—for then how could the creations of the poet become intelligible or interesting to the mass of his fellow-men?—but in possessing the same faculties in a pre-eminent degree—a quick and lively susceptibility, which renders his impressions peculiarly fresh and vivid; a clear and almost *intuitive perception of latent analogies*, much more akin to philosophic genius than it is often supposed to be, and the habit of contemplating truth, not so much in its mere abstract relations as in its concrete manifestations in the actual world around him. He finds in Nature the prototypes of all his highest creations. And hence it has been finely said of him by one whose writings exemplify what his words describe: 'His thoughts were *twin-born*, the thought itself, and the figurative semblance in the outer world. Thus, through the quiet, still waters of his soul, *each image floated double*, '*swan and shadow*.'" [2]

III. *Analogy of the Sensible to the Moral and Spiritual, as exhibited in the Language of Revelation.*

The figurative language in which Revelation is largely

[1] "Analogy an Aid to Truth," pp. 88, 89.
[2] *Ibid.*, p. 89. Longfellow's "Hyperion," p. 15.

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expressed is based upon a correspondence "between the sensible and the spiritual systems, in virtue of which the one is adapted to represent or shadow forth the other." Nature, which lends from its inexhaustible wealth of figures to the needs of ordinary speech, and of poetic language, gives its analogical fulness in a larger and more liberal sense to the service of Revelation. In employing the language of natural similitudes, Revelation employs a language evidently prepared and made ready for its use. The types and shadows, the figures, the metaphors, the parables, the symbols of the Bible, imply the existence of a "pre-ordained harmony" between the mind and material things, the sensible and the spiritual, the earthly and the heavenly, the human and the Divine. Just as the language of the law, especially of its types and ceremonies, the language of Patriarchal and Jewish history, *was prepared for the uses of the Gospel*, so the still older language of Nature was fitted from dateless ages for the utterance of Divine and Christian truth! It was said by Tertullian that the soul of man is naturally Christian; in the sense in which this is so, the sense of profound adaptation, we may say that the Cosmos is Christian! Nature is the older Tabernacle, full of mysterious types of heavenly things, figures of the true, shadows, silent prophecies of good things to come. The language in which Revelation speaks continually implies this analogy. In the simple expressive words of Scripture, God is Light, is Love, is a consuming fire; His Spirit is like the viewless, trackless wind, the refreshing rain, the gentle dove, the ardent flame. Christ is the bright and morning Star, the Day-spring from on high, the Sun of righteousness; He is the Rock, the Root, the Branch, the Vine; the Lamb, the Shepherd, the Husband, the Head. These and countless other Scripture similitudes involve the principle of the *pre-adaptation of Nature to the reflection of spiritual realities.* A close examination and study of the system of Nature confirms the conviction that the Scripture

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use of Natural similes is not irrational and unjust, destitute of foundation in the actual relation of things, but is a use intended and provided for from the beginning by the Author of Nature, who has made the constitution and course of the Natural Order typical of the Revealed.

Seen thus through Scripture uses, Nature is perceived to be "THE GREAT PARABLE."[1] It is the Primeval Prophecy. It is the older Bible. *It is the Unwritten Word.* The unwritten Word precedes the written; the written Word precedes, in a sense, the Living Word, or Word of Life; and the three revelations, the unwritten, the written, and the Living Word, express with varying degrees of clearness and fulness the same great thoughts, affections, purposes; the same mind, and heart, and will of God!

"'It is not merely,' as Jeremy Taylor says, that 'all things are full of such resemblances;' it is more than this—more than resemblance. It is the perpetual recurrence, under infinite varieties of application, of the same rules and principles of Divine government—of the same Divine thoughts, Divine purposes, Divine affections. Hence it is that *no verbal definitions or logical forms can convey religious truth with the fulness or accuracy which belongs to narratives taken from Nature—man's nature and life being of course included in the term.*"[2]

What Divine wisdom shines thus in our Lord's use of Parables! Surely "never man spake like this man." How has His use of parables unveiled both earth and heaven; how has it spoken to the mind and heart of man in every land and age; how has it interpreted and united Nature and God!

IV. *Analogy of the Natural to the Revealed in the Absence on the surface of Systematic Arrangement.*

The varied contents of the volumes of Nature and Revelation, while capable of being reduced to systematic order, are

[1] "Reign of Law." Argyle, p. 54.
[2] *Ibid.*, p. 53.

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not presented to us "in a systematic form, but in a miscellaneous collection." In this respect these two volumes are strikingly alike. The contents of Nature are not classified like the objects in a natural history museum—birds here and beasts there, shells in one room and minerals in another. No labels are affixed to the treasures on the mountains and in the fields. Similarly, the truths of Revelation are not sorted into separate compartments, precepts in one drawer, promises in another, doctrines in a third. Whatever of systematic order may exist in Scripture or Nature is latent, not obvious.

"In God's Word we have here a promise, there a tender exhortation; a doctrine lies imbedded in a narrative or an argument, a precept is conveyed in a burst of poetry, or a group of proverbs. But in vain do we search the Bible for any body of divinity, for any theological system. The *materials* are there, from which the student may frame his own classification, and draw his own lines of definition, which after all will be but a faulty mapping out of Divine truth."[1]

V. *Analogy in the Association of Clearness and Obscurity.*

In both volumes there is a striking combination of light and shade. In the one, as in the other,—

"That is made clear which is necessary to be known for practical use, while much that is more abstruse is either hid from our view altogether, or left to be discovered by patient research and persevering study."[2] "The strange composition or constitution of the Scriptures, being made up of depths and shallows, of things near at hand and things far off, of things mysterious and profound, and things obvious and plain, . . . so exactly answers to the temper and model of the universe, that it is a great argument that one and the same workman was the architect and contriver of both. If we look to the constitution and frame of the universe we shall see the like *chequer-work*, as we may call it, there."[3]

[1] *British Quarterly Review*, lvii. p. 142. "Analogy an Aid to Truth." Buchanan, p. 286.

[2] "Analogy an Aid to Truth." Buchanan, p. 287.

[3] John Goodwin, "Divine Authority of Scripture," pp. 38, 53.

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VI. *Analogy in the Presence of an Ordered Constitution.*

While no systematic order is exhibited in the superficial aspect of Nature, beneath the surface all is system. All the countless parts and forces of Nature are co-ordinated. All the laws and phenomena are mutually connected by analogies and adjustments. All the sequences are linked by causation. How irregular are the apparent movements of the planets, sometimes direct, sometimes retrograde; yet, studied by the scientific mind, all these movements are resolved into the orderly revolutions of the solar system. Real motions are distinguished from apparent, and the causes of the one and of the other traced and demonstrated. In the same way Revelation, while unsystematic in its superficial aspect, discovers to attentive study a systematic character as marvellously perfect as that which is seen in Nature. There is the same co-ordination of parts, the same connection by analogies and adjustments, the same sequence of cause and effect. Lower laws and arrangements are subordinated to higher in a hierarchical order like that which prevails in Nature. "The parts, such as the history, the ordinance, the prophecy, the doctrine, constitute systems, which again combine in one grand system, with the Logos as the central attraction and the central light."[1]

VII. *Analogy in the Existence of a Hierarchical Order.*

The fact that the spiritual order of things made known to us by Revelation forms a department higher than the highest natural order of things is in harmony with the hierarchical constitution of Nature, according to which the organized world is higher than the inorganic, the mental than the physical, and the moral than the mental. The subordination of lower to higher in the Revealed, as of the Mosaic system to the Christian, of men to angels, and of angels of several

[1] McCosh, "The Supernatural in Relation to the Natural," p. 341.

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ranks, including "thrones, dominions, principalities, and powers," to Christ, still further carries out the hierarchical principle. As in human government rank rises above rank, up to the supreme authority which directs the whole, so is it in the Divine. By no other method can lower and higher of many different grades and powers be united in one harmonious system. The analogy here of the Natural to the Revealed is of a kind suited to impress even the most superficial observer, as also the wisdom and necessity of the principle involved. Every one who reflects upon the subject must perceive the reasonableness of such a system of subordination in the government of a universe which includes the material, the mental, and the moral, and above which rises the Divine.

VIII. *Analogy in the Prevalence of the Principle of Union.*

Like the material system, the whole of the moral system is placed under a supreme law of Unity. Gravity is the most potent and universal law in the physical realm; love the mightiest and most universal law in the moral and spiritual. These laws are analogous as laws of Union. The first unites bodies, the second souls. We know of no world where the law of gravity is not supreme; and we know of, and can conceive of, no moral nature in which the law of love is not, or ought not to be so. That Revelation gives a supreme position to the law of love is certain, and is a seal on its divinity.

While the uniting power of love in its widest and most universal action is reflected by the law of gravity, its individual aspects, as parental, filial, conjugal love, have their analogies in the laws of union prevailing in organized Nature. The operation of these laws can be traced from the lowest forms of vegetable to the highest of animal life. While material oneness is the end of the law of gravity, reproduction or fruitfulness is the chief object of the corresponding

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law of union in organized Nature, and holiness, together with happiness, the end contemplated by the law of love in the moral world. The analogies which this subject opens between the Natural and the Spiritual are numerous and profound, and of the highest interest. As every detail on the shore is reflected in the lake beside it, so the laws and phenomena relating to union in the spiritual world are imaged in the natural world lying at its feet. The natural fact or law may present but a dim and inverted reflection of the spiritual, but the correspondence is there; a correspondence which grows more and more perfect up to the mysterious line of demarcation where the one seems to melt into the other.

IX. *Analogy in the fact of a Mono-centric Order.*

The world is centred in Man; Man in Christ; Christ in God.

Both the Natural and the Revealed are Mono-Centric. From the crystal and the plant beneath our feet, up to the stars which circle above us in the infinitude of space, the universe is constructed on the mono-centric principle. Every plant grows round a central axis. The perfection of the animal is according to the centralization of its structure. The mono-centric principle is realized most perfectly in the vertebrate animals, and is progressively realized from the lowest vertebrates to the highest. Not only in the structure of animals and man, but in the social relations, the mono-centric principle occupies a guiding position. The family and the State are mono-centric in the combination in each case of the offices of support and rule in a central person or power. In surrounding Nature the solar system is eminently mono-centric, the solar orb being the visible centre to all the planets of light, heat and motion. The stars are suns, and probably centres of planetary systems. The globular or lenticular forms of innumerable star groups and nebulæ exhibit the reign of the law of centralization in the most distant

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regions of space; while the position of the nebulæ, as chiefly grouped at the two opposite poles of the system of stars to which the sun belongs—a system which includes in its ring-like or disk-like arrangement the myriad stars of the Milky Way—indicates the association of the stars and nebulæ as members of a single system, with a common centre of attraction. In the inorganic, the organic, and the moral worlds, order is everywhere realized by the supremacy of a central authority, and the functions of support and government are combined in the central power.

The analogy of the Natural order with the Revealed in the rule of the mono-centric principle is so palpable as to need no lengthened exposition. In the realm of Revelation *all things are centred in* CHRIST. The combination of the functions of support and rule in His *Prophetic, Priestly and Kingly Offices* presents the spiritual *archetype* of the mono-centric order seen in Nature. Here is the Archetype of the solar principle. The moral sun is the archetype of the material. As the sun is the source of physical light and heat, and the ruler of motion in the material world, so Christ is the source of mental and spiritual light, the spring of love, and the centre of authority in the moral world. As the *Prophet*, He ministers truth; as the *Priest*, He ministers grace; as the *King*, He governs. He is the representative of the wisdom, love and power of the Triune God. *Supernatural wisdom* and *grace* were combined in Him with *supernatural power* when He dwelt among men in "the days of His flesh"; though He was chiefly a Prophet on earth, He is now a Priest in heaven, and will be manifested as a King at His return in glory. Herein is the archetype not only of the order in the inorganic world, that of the solar system, but also of the order in the organic and moral worlds. In the mono-centric principle which prevails in these, the combination of support with rule is progressively realized throughout the entire range of Nature. One law or order pervades the

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whole; a law or order which finds its supreme expression in the spiritual world. Revelation is no rude contrast with Nature, but its counterpart. The Christo-centric principle, with its triple chord, is no jarring sound in the universal harmony. From beneath and from above, through all the amplitude of Nature, its utterance returns in countless accordant echoes. *Supernatural wisdom, love and power united in one—the Archetype;* and Nature's order, inorganic, organic and moral, the corresponding type! One law, above and below, without and within, in the natural and the spiritual! the mono-centric law of a Christo-centric, Theo-centric universe!

X. *Analogy in the reign of the Prospective Principle.*

Nature is full of prospective provisions. The seed lobes which enclose and nourish the embryo plant are instances of such. The nourishment of the young of mammalia is by milk secreted in organs provided in advance. The inorganic world, with its solid, liquid, and aëriform materials, was evidently suited for the support of vegetable and animal life before these appeared. The earth itself was variously prepared for the habitation and use of man long before the advent of the human race. The principle of prospective provision can similarly be traced through all the range of the revealed. The Law with its moral precepts and ceremonial types was not given solely for the sake of the generation of Israelites who lived in the days of Moses, but also and chiefly for the benefit of then unborn generations, Gentile as well as Jewish; and the whole volume of Revelation is a provision made in advance for the needs of the Christian Church through all its generations. Every promise in the Bible is a witness to the principle. Every offer in the Gospel is based on some Divine provision made beforehand for human need.

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XI. *Analogy in the existence of a Progressive Plan.*

The long course of events set forth in Revelation, like that in Nature, exhibits the order of a progressive plan. "The progressive work on the earth's surface" corresponds with "the progressive character of the work of Redemption. In Geology we have stratum superimposed upon stratum in due order, and a pre-ordained advance from the lower to the higher plant or animal, the earlier being prefigurations and prognostics of the later. And in the history of Redemption we have layer added to layer, and lower life ever rising to a higher, and a typical system consummated in Christ, the great archetype." [1]

XII. *Analogy in the existence of a series of Dispensations.*

The progressive order both in Nature and Revelation is that of a series of dispensations. In Nature the inorganic age was followed by the age of living creatures; the age of radiata, mollusca and articulata by the age of the vertebrata; in the latter, the age of the fish was succeeded by the age of reptiles, and that again by the age of birds, the age of mammals, and the age of man. Similarly, in Revelation the antediluvian and patriarchal age was followed by the Jewish age, and that has been succeeded by the Christian age. The Patriarchal, Jewish, and Christian dispensations are associated as stages in a general plan by their relation to the element of a revealed law. In the first of these man was *without law;* in the second, *under law;* in the third, he is placed *under grace.* The three progressive relations to law may be described as *without law; law without;* and *law within.* It is interesting to observe that an analogous triple relation to supporting power can be seen in the structure of plants and animals. The naturalist, Agassiz, classified plants and animals in three groups on this basis: (1) The acoty-

[1] "The Supernatural in Relation to the Natural." McCosh, p. 344.

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ledons in plants bear a general resemblance to the radiata in animals, in the looseness and feebleness of fibre, the irregularity of structure, and the *absence of ring-shaped or columnar supports* fitting for lofty growth, or weight-carrying purposes. (2) The monocotyledons in plants and the mollusca and articulata in animals are constructed on the principle of the attachment of the various parts to *a strong external case, shell, or ring-like formation.* (3) The dicotyledons in plants and the vertebrata in animals are furnished with *an interior column of support.* The three phrases, without support, support without, and support within, may be employed as characterizing in a general way the three methods of structure; and the analogy of these to the three relations of law, including revealed religion, in the words, without law and religion, law and religion without, and law and religion within, can readily be recognised. It should be noted that both in the natural world and in the spiritual the chronological order of the three modes or relations is the same, the lowest method occurring first in the order of time, followed by the higher, and that again by the highest.

XIII. *Analogy in the presence of Prophetic Types.*

There is a *typical order* in Nature and Revelation centring in man. In Nature the vegetable is the archetype of the higher mineral; the animal is the archetype of the vegetable; man is the archetype of the animal. The "ideal continuity of type and pattern" has been preserved throughout.

"When Professor Owen tells us that certain jointed bones in the whale's paddle are the same bones which in the mole enable it to burrow, which in the bat enable it to fly, and in man constitute his hand, with all its wealth of functions, he does not mean that physically and actually they are the same bones, nor that they have the same uses, nor that they ever have been, or ever can be, transferable from one kind of animal to another. He means that in a purely ideal or mental conception of the plan of all vertebrate skeletons *these bones occupy the same relative place*

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relative, that is, not to origin or use, but *to the plan or conception of that skeleton as a whole.*"[1]

On turning to Revelation we observe a parallel relation between "the first man Adam," and "the second man, the Lord from heaven."[2] Adam was "the figure of Him that was to come."[3] The analogy of the first Adam to the second is traced in the New Testament. And all along the line of Old Testament history the leading sacred personages, such as Noah, Melchisedec, Isaac, Joseph, Moses, Aaron, Joshua, David, Solomon, etc., are constituted types of Christ. The whole course of Jewish history, from Abraham to Christ, is made typical of Christian history, and the ceremonies of the Law of the realities of the Gospel. The parallel between the Natural order and the Revealed is complete. Man is in each case the central archetype of an ascending series of types.

In the typical order unfolded both in Nature and Revelation *the types preceded the Archetypes.* Thus, in Nature, the mineral type preceded in point of time, or origin, the vegetable archetype; the vegetable type preceded the animal archetype; and the animal type preceded the human archetype. In Revelation, similarly, the Adamic, Mosaic, and other Old Testament types preceded the Christian archetypes. Had the types only appeared at the same time with the archetypes, they would have manifested no more than analogy or plan, but as they preceded the archetypes, they evince foresight. The types not only shadow the archetypes; they foreshadow them. The predictive element can no more be eliminated from the written record than it can from the record of the rocks. And in both cases the meaning of the mysterious prophecies expressed in the language of types and symbols becomes gradually and progressively clear and plain as the prophecies are accomplished, and are studied in the light of their fulfilment.

[1] "Reign of Law." Argyle, p. 31.
[2] 1 Cor. xv. 45, 47. [3] Rom. v. 14.

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XIV. *Analogy in the prevalence of the Parental Relation.*

The constitutions of the Natural and of the Revealed agree in this, both are parental. God is revealed in Scripture as a Father. He is "the Father," "our Father." By His teachings, His works, and His character Christ revealed the Father. And the Father whom He revealed was His Father. In the eternal relations of the Father and the Son we see the uncreated archetype of the parental relation established between God and His creatures. Nature is ordered in analogy with this principle. Parentage is universal; man, the animal, the plant, bring forth in their likeness. The created parent sustains, guards, governs in analogy with the uncreated parent. The higher we ascend in nature the more complete the analogy becomes. But even in the inorganic world we see the image of the parental principle in the relation of the sun to its family of worlds, as supplying them with necessary light and heat, and governing all their motions. If the sun is a star, and every star a sun, the universe itself must be ordered upon the parental principle. As far as we can ascertain, the principle runs through the whole of Nature, just as it does through the whole of Revelation.

XV. *Analogy in the Reign of the Retributive Principle.*

The closest and most practically important analogies between the Natural and the Revealed are not those between the physical system in the one and the moral system in the other, but those between *the moral systems* in the two cases. The moral government of God exhibited in Nature is as systematic as the physical order; and further, the physical order is subordinated to the moral. A law of sequence prevails in the moral world as in the physical; moral actions have invariable physical and moral consequences. Herein the experience of Nature agrees with the teaching of Revelation; while the latter extends the reign of righteous retribution to a future life, and to the endless ages of eternity.

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Godliness "has the promise of the life that now is, and of that which is to come." "Whatsoever a man soweth, that shall he also reap." God "will render to every man according to his deeds: to them who by patient continuance in well-doing seek for glory and honour and immortality, eternal life: but unto them who are contentious, and do not obey the truth, but obey unrighteousness, indignation and wrath, tribulation and anguish, upon every soul of man that doeth evil: for there is no respect of persons with God."[1] Revelation presents us with a history of God's moral government of the world. The correspondence between the two systems is such that whatever objections may be raised against the Revealed system apply with equal force to the Natural system.

We find by experience, with respect to the Author of Nature, "that He actually exercises dominion or government over us at present by rewarding and punishing us for our actions in as strict and proper a sense of the words, and even in the same sense, as children, servants, subjects are rewarded or punished by those who govern them, and thus the whole Analogy of Nature, the whole present course of things, most fully shows that there is nothing incredible in the general doctrine of religion that God will reward and punish men for their actions hereafter: nothing incredible, I mean, arising out of the notion of rewarding and punishing. For the whole course of Nature is a present instance of His exercising that government over us, which implies in it rewarding and punishing. . . . The general thing here insisted upon is not that we see a great deal of misery in the world, but a great deal which men bring upon themselves by their own behaviour, which they might have foreseen and avoided. These natural punishments oftentimes follow, or are inflicted in consequence of, actions which procure many present advantages, and are accompanied with the highest mirth and jollity; that these punishments are often much greater than the advantages or pleasures obtained by the actions of which they are the punishments or consequences: that though we may imagine a constitution of Nature in which these natural punishments, which are in fact to follow, would follow immediately upon such actions being done, or very soon after, we find, on the contrary, in our world, that they are often delayed a great while, sometimes even till long after the actions occasioning them are forgot; so that the constitution of Nature is such, that delay of punishment is no sort nor degree of presumption of final impunity: that after such delay these natural

[1] Rom. ii. 6–11.

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punishments or miseries often come, not by degrees, but suddenly, with violence, and at once." "Indeed, when one has been recollecting the proper proofs of a future state of rewards and punishments, nothing, we think, can give one so sensible an apprehension of the latter, or representation of it to the mind, as observing that after the many disregarded checks, admonitions and warnings which people meet with in the ways of vice, and folly and extravagance; warnings from their very nature, from the examples of others; from the lesser inconveniences which they bring upon themselves, from the instructions of wise and virtuous men; after these have been long despised, scorned, ridiculed; after the chief bad consequences, temporal consequences of their follies have been delayed for a great while, at length they break in irresistibly, like an armed force: repentance is too late to relieve, and can serve only to aggravate their distress; the case is become desperate; and poverty and sickness, remorse and anguish, infamy and death, the effects of their own doings, overwhelm them beyond possibility of remedy or escape. This is an account of what is, in fact, the general constitution of Nature."[1]

XVI. *Analogy in the operation of the Remedial Principle.*

Nature, like Revelation, is remedial. Disturbances arise in the inorganic, the organic, and the moral worlds which are remedied. Thus "the planets, while revolving round the sun, continually disturb each other by their mutual attraction, and hence arise numerous inequalities in their motions, similar to those which take place in the motion of the moon round the earth." These perturbations have been long and closely studied by astronomers, and the conclusions they have reached are very remarkable. It has been demonstrated "that the mean distances of the planets are not subject to any secular variations whatever, but are merely affected by a series of inequalities which compensate themselves in short periods depending on the mutual configurations of the different planets." Jupiter disturbs the place of Saturn, and Saturn that of Jupiter; Uranus is accelerated or retarded by Neptune, and every planet more or less affected by every other. The eccentricities and inclinations of the orbits vary

[1] "The Analogy of Religion to the Constitution and Course of Nature," Bp. Butler, ch. ii.

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in magnitude, the apsides and the nodes vary in position, "but throughout an indefinite lapse of ages *the mean motions of the planets will remain unaltered by their mutual attraction.*"[1] Such is the balance of the system that movements in one direction are compensated for by movements in another. Every ebb is followed by a corresponding flow; every swing of the sublime pendulum by a return. Amid perpetual mutation there reigns eternal order, and the stability of the system is secured by the operation of wise adjustments and unerring laws.

Descending from the revolution of the planets to the changes which take place on the surface of the earth, we observe that the slow wearing away of the solid materials of the land by water action is counteracted by volcanic eruptions throwing up new islands and mountain chains from the depths of the sea. All the continents have been raised from a submerged condition. Again and again sea bottom has become dry land. But not only are inorganic forces at work to counteract the destructive effects of water action, for organic agents play their part in the same undertaking. The coral insect rears extensive reefs, sometimes hundreds of miles in length, amid the roaring seas, which in due time become covered with soil, and clothed with vegetation. Atmospheric disturbances are restrained within fixed limits, and balanced by opposing movements. The desolating storms of winter are quieted by the approach of spring, and Nature, stripped of summer foliage, is clothed anew in fair raiment. The production of vegetable and animal life constantly balances its destruction. The birth-rate, in the case of man, exceeds the death-rate. Physical diseases have their natural remedies. No exhaustive catalogue has ever yet been made of the remedies in Nature's great Pharmacopœia. Physicians can do no more than apply the remedial powers

[1] "History of Physical Astronomy," Grant, p. 52.

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furnished by Nature. Of notable importance among these is the "function of healing discovered in the restoration or repair of animals and vegetables that are wounded or sick. When a tree, for example, is hacked or bruised, a strange nursing process forthwith begins by which the wound is healed. A new bark is formed on the edges of the wound, by what method no art of man can trace, the dead matter is thrown off, and a growth inward narrows the breach, till finally the two margins meet and the tissues interweave, and not even a scar is left. So in all the flesh wounds of animals, and the fractures even of bones. So, too, in regard to all diseases not terminating mortally; they pass a crisis, where the healing function, whatever it be, triumphs over the poison of the disease, and a recovery follows, in which the whole flesh and fibre appear even to be produced anew."[1]

In the moral world evil produces consequences which tend to arrest its progress. Crimes commonly bring punishments; oppressions create revolutions; extreme and unjustifiable actions produce reactions of an opposite character. The story of the prodigal son repeats itself in the history of individuals and nations. Lawless courses lead to distress and misery designed to provoke reflection and repentance, and a return to better ways. The remedial character of the constitution of Nature finds its archetype in the redemptive system unfolded in Revelation. The entire action of Redemption is remedial. The story is that of the recovery, the healing, the restoration of a lost and ruined world. While the remedial processes in Nature present many and striking analogies with those in Revelation, the latter so far transcend the former as to require a special set of types, providentially created, to represent them. The natural and revealed types cast their blended light on the Cross of Calvary. One theme unites the whole. The story of Redemption is the history of the world.

[1] "Nature and the Supernatural," Bushnell, p. 156.

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XVII. *Analogy in the presence of the Vicarious Principle.*

The mediatorial work of our Lord Jesus Christ occupies the central place in revealed religion. According to the teaching of Scripture, "there is one God and one Mediator between God and men, the man Christ Jesus, who gave Himself a ransom for all."[1] "He is able to save to the uttermost them that come unto God by Him, seeing He ever liveth to make intercession for them."[2] The mediatorial work of Christ involves the vicarious principle, according to which one person acts or suffers for another. The analogy of Nature removes objection to this principle in the minds of those who admit nature to be from God.

"For we find that all living creatures are brought into the world, and their life in infancy is preserved, by the instrumentality of others; and every satisfaction of it, some way or other, is bestowed by the like means. So that the visible government which God exercises over the world is by the instrumentality and mediation of others. And how far His invisible government be or be not so, it is impossible to determine at all by reason. There is no sort of objection from the light of Nature against the general notion of a Mediator between God and man, considered as a doctrine of Christianity, or as an appointment in this dispensation: since we find by experience that God does appoint mediators to be the instruments of good and evil to us; the instruments of His justice and His mercy."[3]

The parental relation associated in Scripture with the mediatorial work of Christ (Rom. v. 12–21) brings it into still closer analogy with the order of Nature. Christ, we are taught, is the Second Adam. As sin and death are inherited by the descendants of the first Adam, so are righteousness and life by the race of the redeemed connected with the second. The law of heredity which prevails in the natural world extends to the spiritual. "The first man is of the earth, earthy: the second man is the Lord from heaven. As is the earthy, such are they also that are earthy: and as is the heavenly, such are they also that are heavenly. And as

[1] 1 Tim. ii. 5, 6. [2] Heb. vii. 25.
[3] Butler's "Analogy," ch. v. 1.

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we have borne the image of the earthy, we shall also bear the image of the heavenly."[1]

XVIII. *Analogy of the Indwelling, or Temple Principle.*

Nature is a temple consisting of three parts, the inorganic, the organic, and the mental or moral. The first of these contains the second, while the second contains the third. The mind inhabits the body, while the body inhabits the material world. The order here is analogous to "the pattern" shown to Moses in the Mount, according to which he constructed the tabernacle. Both the tabernacle and the temple which replaced it consisted of three parts, the outer court, the sanctuary, and the holiest of all. The second and third formed one structure, just as the organic and moral natures in man form one person; and thus united, the two parts of the sanctuary were surrounded by the outer court, just as the united soul and body are surrounded by the realm of inorganic nature.

The temple principle is one of the profoundest links between the Old Testament and the New. The applications of the temple type are various,[2] but the central thought is the same throughout. The temple is God's dwelling. That thought is expressed in the condescending command, "*Let them make Me a Sanctuary that I may dwell among them.*"[3] When fallen man was prohibited from re-entering Paradise to dwell with God, God was pleased to come forth into the wilderness to dwell there with man. Thus in the archetype of INCARNATION "the Word became flesh, and dwelt among us";[4] dwelt among men in the moral wilderness, and even wandered for forty days in the literal wilderness, as did the Shekinah-filled tabernacle for forty years. And when, in

[1] 1 Cor. xv. 47–49.

[2] John ii. 19; Eph. ii. 21; Heb. ix. 11, x. 19; 1 Cor. vi. 19; Rev. xi. 1, 2.

[3] Exod. xxv. 8.

[4] John i. 14.

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New Testament history, the lowly tabernacle was transformed into the glorified temple, when the humanity in which God had dwelt, as He had never dwelt in any other, was raised, glorified, and exalted to the highest station in the universe, then was the mystical body of Immanuel, the Church, filled for the first time with the presence of the Spirit. Incarnation and the Pentecostal effusion are the two forms which the New Testament presents of the Divine indwelling. It is important to connect and yet to distinguish them, the dwelling of God in man by His Spirit, and the union of God and man in the person of our Lord Jesus Christ.

The dwelling of mind in matter, of the moral nature in the physical, is seen both in Nature and Revelation; the same triple order of parts, the same inclusion of the sanctuary in its surroundings. We might say broadly that while Nature is the temple of man, man is the temple of his Maker; but it seems nearer the truth to say that Nature and man are the outer court and inner sanctuary of one and the same great temple. In the union of the finite with the Infinite, Nature and man are the true tabernacle of the Eternal; Christ the true abiding Temple. The manifestation of God in the flesh, which is the central fact in revelation, is a central principle in the order of the universe.

XIX. *Analogy in the place of the Intuitional Principle.*

In the order of the perceptive faculties reason does not occupy a primary place. The sense perceptions, the powers of instinct, the mental and moral intuitions, precede it. We see and know before we can compare the things we see and know, and infer their consequences. The analogy of the natural with the spiritual, in this respect, is remarkable. It is "not by the intellect *alone*, or by the intellect *first*," that we judge of moral and spiritual questions. It is by the moral sense, or conscience, that we judge of the former; and by the spiritual sense, or perceptive powers of the renewed heart,

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that we judge of the latter. Faith is the highest of the intuitions. It is "the soul of morality," and "the perfection of human intelligence."[1] Its power is analogous to that of vision. The pure in heart "see God." Faith does not reach its convictions by any series of steps. It does not lay down premises and draw conclusions. It looks directly on its object. It does this by a new and supernatural power. Spiritual things are "spiritually discerned."[2] The highest philosopher whose heart is unrenewed can only be blind to "the things of the Spirit." "I cannot reach that by philosophy," says Dr. Duncan, "which God gives by inspiration."[3] It is not with the reason, or logical faculty, but "with the heart man believeth unto righteousness."[4] Whether in natural or spiritual matters, "the things of the heart are not truly comprehended but by the heart. The heart does not comprehend like the reason, but it comprehends as well, if not better." Applied to the things of the heart, reason "wanders in obscurity; it passes by the side of sentiment (or mental feeling) as if it were a stranger; it neither understands nor is understood; and retires from a useless struggle without having taken or given anything. Reason on the one side, and the heart on the other, do not comprehend each other. They have no mutual agreement except in that of a disdainful pity."[5]

[1] Coleridge, "Aids to Faith," preface and p. 16. [2] 1 Cor. ii. 14.
[3] "Colloquia Peripatetica," p. 64. [4] Rom. x. 10.
[5] "Vital Christianity," Vinet, p. 56.

"To render this truth more evident, suppose, on the one hand, *a generous man, a hero*, a soul ever burning with the lofty flame of devotion; and, on the other hand, *a man of quick intelligence, of reason vast and profound, but deprived, were it possible, of all sensibility*, do you not believe that the first would, all his life long, be an enigma to the other? How, indeed, could the latter conceive of those transports of enthusiasm, those acts of self-denial, and those sublime expressions, the source of which never existed in his own soul? 'The spiritual man,' says St. Paul, 'judgeth all things, and no one (unless spiritual) can judge him.' Let us, by supposition, apply this expression to the sensitive and generous being of whom we speak; no one, unless he has the germs of the same emotion,

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XX. *Analogy in the operation of the Inner Law Principle.*

Nature controls actions by external constraints, and by internal law. Conscience, the noblest of the natural laws, is

can form a judgment of him; a fact distinctly recognised by those who have said that great souls pass through the world without being understood.

"Affectation! hypocrisy! is the cry frequently heard in view of certain manifestations, and especially of religious manifestations. An ardour which glows in the depths of the soul, which engrosses all the faculties, and which is incessantly renewed from its own proper source, appears to some too strange to be credited. In order to believe it, they need only to feel it; but certain it is that unless they do feel it, they cannot conceive of it. And they will continue to tax with affectation and hypocrisy a sentiment which perhaps restrains itself, and discovers only half of its energy. A mistake how natural! All the efforts of the most active intellect cannot give us the conception of the taste of a fruit we have never tasted, or the perfume of a flower we have never smelt, much less of an affection we have never felt.

"It is with the heights of the soul as it is with the sublimities of the firmament. When, on a serene night, millions of stars sparkle in the depths of the sky, the gorgeous splendour of the starry vault ravishes every one that has eyes; but he to whom Providence has denied the blessing of sight would in vain possess a mind open to the loftiest conceptions; in vain would his intellectual capacity transcend what is common among men. All that intelligence, and all the power he might add by study to his rare gifts, will not aid him in forming a single idea of that ravishing spectacle; while at his side a man without talent or culture has only to raise his eyes to embrace at a glance, and in some measure to enjoy, all the splendours of the firmament, and, through his vision, to receive into his soul the impressions which such a spectacle cannot fail to produce.

"Another sky, and one as magnificent as the azure vault stretched over our heads, is revealed to us in the Gospel. Divine truths are the stars of that mystic sky, and they shine in it brighter and purer than the stars of the firmament; but there must be an eye to see them, and that eye is love. The Gospel is a work of love. Christianity is only love realized under its purest form; and since the light of the world cannot be known without an eye, love cannot be comprehended but by the heart.

"You may have exhausted all the powers of your reason, and all the resources of your knowledge, to establish the authenticity of the Scriptures; you may have perfectly explained the apparent contradictions of the sacred books; you may have grasped the connection of the fundamental truths of the Gospel. You may have done all this, yet, if you do not love, the Gospel will be to you nothing but a dead letter, and a sealed

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a law written in the heart. As possessed of a moral sense man is a law unto himself.[1] The guidance of this law is not

book; its revelations will appear to you but as abstractions and naked ideas; its system but a speculation unique in its kind; nay, more, whatever in the Gospel is most attractive, most precious and sweet, but an arbitrary conception, a strange dogma, a painful test of your faith, and nothing more.

"But let love, sweet, gracious, luminous, interpreting, come between the Gospel and the human soul, and the truth of the Gospel shall have a meaning,—and one as clear as it is profound. Then shall your soul find itself free and happy in the midst of these strange revelations. Then shall those truths you have accepted, through submission and obedience, become to you as familiar and as necessarily true as those common every-day truths upon which depends your existence. Then shall you penetrate without an effort into the marvellous system which your reason dreaded, so to speak, to see too near, in a confused apprehension of being tempted to infidelity. Then shall you probably be astonished that you had never perceived, conjectured, discovered it; that previous to revelation you had never found out that such a system was as necessary to the glory of God as to the happiness of man.

"So long as man, with reason alone, has climbed up Calvary, and gone around the Cross, he has seen nothing but darkness in the Divine work of expiation. For whole ages might he remain in contemplation before that mysterious fact, but would not succeed in raising from it the vail. Ah! how can reason, cold reason, comprehend such a thing as the substitution of the innocent for the guilty, as the compassion which reveals itself in the severity of punishment in that shedding of blood without which, it is said, there can be no expiation? It will not make, I dare affirm, a single step towards the knowledge of that Divine mystery, until, casting away its ungrateful speculations, it yields to a power more capable of the task of terminating the difficulty. That power is the heart which fixes itself entirely on the love that shines forth in the work of redemption; cleaves without distraction to the sacrifice of the adorable Victim; lets the natural impression of that unparalleled love penetrate freely, and develop itself gradually, in its interior. Oh, how quickly then are the vails torn away, and the shadows dissipated for ever! How little difficulty does he that loves find in comprehending love! How natural to him does it appear, *that God, infinite in all things, should be infinite also in His compassion!* How inconceivable to him, on the other hand, that human hearts should not be capable of feeling the beauty of a work without which God could not manifest Himself entire! How astonished is he at the blindness of those who read and re-read the Scriptures *without comprehending the central truth; who pass and repass before a love all Divine without recognising or even perceiving a work all Divine!*"[2]

[1] Rom. ii. 14. [2] "Vital Christianity," Vinet, pp. 57-59.

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that of blind instinct, or brute force, but simply the sense of duty.

In the employment of this twofold method of control the Natural is analogous with the Revealed. The most striking contrast between Judaism and Christianity is that between the *externalism* of the first and the *internalism* of the second. The law sought to control conduct by external command. Its throne was Mount Sinai, whence it spoke in a voice like thunder, and from amid devouring flames. Its precepts were engraven by the finger of God on tablets of stone. Its sanction was force. Its appeal was to fear. Its effect was death. The Gospel, on the other hand, controls conduct by imparting interior impulse. Its throne is Calvary. Its voice is the "still small voice"[1] of the Spirit of truth and grace. Its appeal is to gratitude. Its rule is by love; and it awakens love by manifesting love. It engraves its precepts in the heart. These two widely different methods of control are contrasted in the memorable terms of the new covenant, and the superior efficacy of the second, as compared with the first, is declared. "Behold, the days come, saith the Lord, that I will make a new covenant with the house of Israel, and with the house of Judah: not according to the covenant that I made with their fathers in the day that I took them by the hand to bring them out of the land of Egypt; which My covenant they brake, although I was a husband unto them, saith the Lord: but this shall be the covenant that I will make with the house of Israel; After those days, saith the Lord, I will put My law in their inward parts, and write it in their hearts; and will be their God, and they shall be My people. And they shall teach no more every man his neighbour, and every man his brother, saying, Know the Lord: for they shall all know Me, from the least of them unto the greatest of them, saith the Lord: for I will

[1] 1 Kings xix. 12.

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forgive their iniquity, and I will remember their sin no more."[1]

XXI. *Analogy as to the Principle of Progressive Liberation.*

Both in Nature and Revelation the measure of freedom is the measure of perfection. Inorganic matter is destitute of freedom. The stone that lies by the wayside has no self-directing power. The plant is in some degree self-guided; it grows towards the light, and turns its leaves and flowers to the sun, but is rooted in one spot. The lowest animals are possessed of powers of motion, but are restricted in their use by being rooted to the earth, like plants; animals higher in the scale are free to move about from place to place, but are compelled to carry their houses with them wherever they go. Other animals, of a higher grade, are free to leave their houses, but are cased in ringed and jointed armour, impeding perfect freedom of action. Still higher animals are constructed on the vertebrate principle, in which the muscular attachments are to an internal skeleton; and among the vertebrates there is a progress in freedom of action from the movements of the scale-clothed fish or reptile, up to those of man. In his possession of intelligence, conscience, and free will, man is the crown and climax of the natural order. Revelation exhibits the advance of man from lower to higher stages of liberty. "Whosoever committeth sin is the servant of sin." The Gospel proclaims "liberty to the captives." It liberates by imparting knowledge. "Ye shall know the truth, and the truth shall make you free." It sets free by bestowing the spirit of sonship. "If the Son shall make you free, ye shall be free indeed."[2] Revelation thus continues and completes the progress in freedom visible in Nature. As higher and lower stages of this progress in the natural order are analogous, so is the progress in freedom in the natural

[1] Jer. xxxi. 31–34. [2] John viii. 32, 36.

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order, as a whole, analogous to that which is unveiled in Revelation.

XXII. *Analogy as to an Ascending Order of Increasing Complexity.*

This principle is the complement of the preceding. The progress in freedom of action is accompanied by a progress in the complication of laws and phenomena, whether Natural or Revealed.

"The complexity of Nature," says Dr. McCosh, "is one of the most wonderful of its characteristics, though it is often overlooked in the present day by persons who are endeavouring to discover the universality of law. . . . There is one penetrating (though offensively arrogant) thinker of our day who has not overlooked this characteristic of Nature. We allude to Mr. Auguste Comte, who, in his work on Positive Philosophy, has given a classification of the sciences, arranged according as the phenomena of which they treat are more or less simple, or less or more complicated. . . . He arranges phenomena into two great divisions—those that are unorganized being the most simple, and those that are organized being more complicated. Taking up inorganic Nature, he places, after mathematics, astronomy at the head of his hierarchy of the natural sciences. . . . He then goes on to show that terrestrial physics is a more complicated science than astronomy. . . . He divides terrestrial physics into two parts, according as we examine bodies under a mechanical or chemical point of view. Of these the former is evidently simpler and more general. Rising to organized bodies, he divides the phenomena which present themselves into two classes—those which relate to the individual, and those which relate to the species—giving rise to what he calls organic physics and social physics."[1] The six fundamental sciences—mathematics, astronomy, physics, chemistry, physiology, and social physics—are thus arranged, "according as they are less or more complicated, farther from or nearer to humanity." The first in the list are "farthest removed from humanity," while the last are the "most directly interesting to man." "Between these two extremes, the degrees of speciality, of complication, and of the personality of phenomena, go on gradually augmenting, as also their successive dependence."

The law thus observable in the Natural world extends to the Revealed. "There are domains lying altogether beyond those claimed by science; and *these are still more complex in*

[1] "Method of the Divine Government." McCosh, p. 165.

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their nature, and have a still closer relation to man. There are phenomena in which science never attempts to discover law—they are so intricate and involved; and these, if we do not mistake, furnish the most potent of the agents employed by God in the government of man." In this realm of inscrutable complexity and ceaseless change the Providence of God is ever freely acting. Here is the special sphere of the movements of the Divine Spirit.

"The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh, or whither it goeth."[1] Like the complex and ever-changing currents of the air in the outer sphere are the complex movements of the Spirit in the realm within. And as the movements of the wind obey the general guidance of the sun, so those of the Spirit are under the direction of the God-man Mediator, now exalted to the throne of authority and glory.

XXIII. *Analogy as to the Principle of Conflict.*

One of the profoundest analogies between the course of the Natural and that of the Revealed lies in the fact that in each case the story presented is that of *a prolonged tragical conflict*, issuing in the victory of the nobler and better powers over the baser and worse.

The history of the earth, like that of man, is darkened by the element of warfare. Geology witnesses to the fact that there has been in the animal world for countless ages a fierce "struggle for existence," resulting in the destruction of inferior forms of life, and "the survival of the fittest." In this deadly struggle whole generations have perished, while individual races have improved. Man himself has taken part in the warfare, and has been victorious over the wild beasts of the earth. He has already to a large extent either tamed or exterminated his animal foes. He has lifted up a portion of the animal race, and, on the other hand, has bruised, and still

[1] John iii. 8.

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bruises, the lion and the serpent beneath his feet. This sanguinary conflict in the physical world is paralleled by conflict in the moral world of a loftier character. *A new principle has been introduced* in the history of the world, which has revolutionized the warfare. That principle is *the moral nature.* The struggle between beast and beast, and that between beast and man, has no moral character. Its spring is in hunger or the love of life, its method the selfish sacrifice of its prey, or the remorseless extermination of its antagonist. But warfare of this type between man and man is condemned by conscience. It is prohibited by the law of duty, which is that of universal love.

"The practice," says Huxley, "of that which is ethically best—what we call goodness or virtue—involves a course of conduct which in all respects is opposed to that which leads to success in the cosmic struggle for existence. In place of ruthless self-assertion it demands self-restraint; in place of thrusting aside, or treading down all competitors, it requires that the individual shall not merely respect, but shall help his fellows; its influence is directed, not so much to the survival of the fittest, as to the fitting of as many as possible to survive. It repudiates the gladiatorial theory of existence." [1]

From this it follows that the animal and the human worlds are divided by an impassable gulf. In vain does Evolution seek to bridge the chasm! Man is not a beast. He is a moral being made "a little lower than the angels," [2] made "in the image of God." [3] Ignoring this fundamental fact, Evolution is powerless to solve "the problem of ethical life." Man's moral nature is its stumbling stone! "Whatever difference of opinion may exist among experts," says Huxley, "there is a general consensus that the ape and tiger methods of the struggle for existence are not reconcilable with sound ethical principles." [4] "The ways of the cosmos," says this exponent of Evolution, "afford no sanction for morality."

[1] "Evolution and Ethics." Thos. H. Huxley, F.R.S., p. 33.
[2] Ps. viii. 5. [3] Gen. i. 27.
[4] "Evolution and Ethics," p. 7.

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Revelation, starting with the creation of man "in the image of God," records the entrance into the world of moral evil, and describes the struggle between good and evil which has ensued, and which it predicts will issue in the final victory of good over evil. The story of this struggle fills the entire volume. It begins on its first page to terminate only on its last. The "seed of the woman" wars against the "seed of the serpent," and overcomes through suffering, self-sacrifice, and death. The crisis of the conflict was reached eighteen centuries ago on Calvary. "The decisive battle was fought when Jesus suffered on the cross; the victory was won when He rose from the dead, and ascended into heaven, leading captivity captive." [1]

The general analogy of the warfare thus described in Revelation with that which is seen in nature lies in the fact that in each case there is a struggle between higher and lower powers, resulting in the subjugation of the lower by the higher. In the one, the strife is physical; in the other, moral. In the one, it is wholly without; in the other, largely within. In the one, man bruises the typical serpent; in the other, he crushes its antitype. In the one, he sacrifices his exterior foe; in the other, he sacrifices his sinful self. "They that are Christ's have crucified the flesh, with its affections and lusts." [2] In the one and the other we see the story of perished races, and of a race which survives; in both, the destruction of the lower nature, and the victory of the higher. As man has conquered in the physical sphere, so now is conquering the Son of Man in the moral sphere. As God has put all lower creatures under the feet of Man,[3] so is He putting all the enemies of the Son of Man beneath His feet. Unto the Son He saith, "Sit Thou at My right hand until I make Thine enemies Thy footstool." [4] "He must reign till He hath put

[1] "The Religious Aspect of Evolution." McCosh, p. 107.
[2] Gal. v. 24.
[3] Ps. viii. 6; Heb. ii. 8.
[4] Ps. cx. 1.

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all enemies under His feet. The last enemy that shall be destroyed is death." [1]

XXIV. *Analogy in the reign of the Palingenetic Principle.*

The order of Nature is Palingenetic. Its course is that of a succession of worlds, old and new. On the portal of the world that now is shines the sentence belonging to the world to come, "I saw a new heaven and a new earth; for the first heaven and the first earth were passed away." Our world is not the first that has ever been, but the last of a long series of time worlds. Every new world that has risen in that long series has been loftier than the preceding world. Each, in its turn, has been a prophecy of a higher world to come. And the world that now is proclaims the world that is to be! As the animal world has succeeded the inorganic, and the human world the merely animal, so the Divine world shall succeed the human. Waves of destruction have covered the past worlds, and shall cover the present world, but from the whelming flood shall rise a fairer creation.

And not only in its relation to previous worlds is the present world palingenetic, but in its actual constitution, in its diurnal and annual course, and in a thousand minor details. No radiant sunrise after a dark and dismal night but foretells the advent of the "morning without clouds"; no peaceful calm after storm and tempest but breathes of "the rest which remains for the people of God"; no bursting forth of life and loveliness in Spring but promises a better resurrection yet to come. Nature is pregnant with the purpose and power of resurrection. No seed but is buried in the dark earth before it blooms! Scarce an insect but descends and lies coffined like the seed beneath the soil, before it floats azure-winged in sunshine. The larvæ life, the crysalis condition, then the imago state,—such is the triple order ever repeated in the history of a hundred thousand varieties of creatures in the

[1] 1 Cor. xv. 25, 26.

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insect world. Whole tribes of creatures ascend in the course of their existence from living in a lower to living in a higher element, undergoing transformations in their organs to fit them for the change. The higher animals and man are born from one stage of being into another, passing at birth from intra-uterine to extra-uterine existence. The whole process of growth and development in the individual and in the race is marked by the ascent from lower stages of life and character and condition to higher. The whole movement of nature is upward. Its goal is renovation. Its deep-toned ceaseless utterance is Palingenesia!

CONCLUSION.

1. *The Analogy of Phenomena in Nature and Revelation exhibited in the foregoing section, involves identity of law.*

We use the word law in the sense of *order*; of order as the effect of Divine will. Thus a law of Nature and its invariable order, are the same. The *forces* operating in Nature and Revelation may be widely different when the *order* is identical. The Natural and the Revealed are demonstrably, to a large extent, governed by the same order; in other words, by the same laws. Some of these laws or principles have been pointed out in this chapter. We have indicated among others the prevalence in the two spheres of the same parental law; the same retributive and remedial laws; the same law of indwelling; the same vicarious law; the same law of ever-widening liberty, and of the tendency in higher departments to inner as contrasted with outer control; the same laws of union, subordination, and centralization; the same laws of prospective provision and progress; the same laws of type and prophecy; the same dispensational and homo-centric laws; the same hierarchical order; the same law of conflict or struggle for existence, and the survival of the fittest; and the same Palingenetic law of regeneration and renewal.

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2. *The laws or principles here grouped together as common to Nature and Revelation are leading laws in both systems.*

No law in physical nature is more universal than that of Gravitation; no law in the moral world than that of Love. The laws of Centralisation, Subordination, and Progress are equally wide in their prevalence. The Parental, Retributive, Remedial, and Mediatorial laws, together with the laws of Conflict with the survival of the fittest, and Renovation, are in an eminent sense characteristic of Revelation, while manifestly laws of Nature. A consideration of the various laws we have enumerated will show that they cover and involve the most salient features in the Revealed system. Their prevalence in the Natural system is a demonstration of its intimate connection with the Revealed, and indicates the unity of their origin.

3. *The Analogy we have traced between the Natural and the Revealed, involves the Archetypal character of the latter.*

The Archetypal position of the Spiritual is apt to be obscured or lost sight of when the connection insisted on between the Natural and Spiritual is that of the *identity* of the laws by which they are governed. For the Natural and Spiritual systems do not stand on the same level. The Spiritual is higher than the Natural, and antedates it in origin. In the analogies by which they are connected the types are on the Natural side, and the Archetypes on the Revealed.

4. *The Analogy we have traced exhibits the convergence of Types, both Natural and Revealed, to one central Archetype.*

The convergence of the lines proceeding from *Revealed* Types to *one central Archetype* is evident. Revelation, as we have shown, is Christo-Centric. A similar convergence of types can be traced in Nature. Not only are the Archetypes of Nature's Types found in the Revealed, but the

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lines proceeding from them converge to and meet in the Central Archetype of Revelation. The relation, for example, of father and son in Nature, has its archetype in that of the Eternal Father and his only begotten Son. The various types of indwelling, or Temple Types in Nature, like those in Revelation, have their Central Archetype in the Incarnation. In Christ alone dwells "all the fulness of the Godhead bodily."[1] The remedial system seen in Nature has its archetype in the restoring work of the world's Redeemer. The Vicarious system in Nature reflects the action of the one Mediator between God and man. If man is the archetype of the lower animal creation, Christ is the Archetype of man. The "second man" is the archetype of the first; is the realisation of the human ideal, and this not merely as perfect on earth, but as glorified and exalted in heaven. The subjugation of the world by man has its archetype in the subjugation of all things by the Son of Man. The various types of union in Nature lead up to the union of the Divine and human in and through the Mediator, and to His mystical union with the Church. Here, in the latter, is found the archetypal marriage union whose shadows and prefigurations run so far into the depths of Nature's system. The laws of growth and fruitfulness; the laws of life, of its derivation, support, and development, lead to the same common centre. Every seed that falls into the ground and dies before it springs up and produces fruit, points to the archetypal order which centres in the death and resurrection of the Son of God. The "bright and morning star" speaks of Him; the glorious sun, as the centre of light, heat, and motion to the family of worlds grouped around it, reflects His exalted position and office in the moral universe. Every star radiating light owns the archetypal supremacy of the sun of eternal day. Trace the lines of Nature's types, and they will be found, like those

[1] 1 Cor. ii. 9.

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in the pages of Revelation, to lead to one supreme centre; for Nature, like Scripture, is Christo-Centric. Heaven and earth form but *one Temple.* The Natural is but the outer court of the Revealed, and as in the inner sanctuary, so in the outer court, all the vessels and the veils, the buildings and the boundaries sustain a supreme relation to the centre of the whole—the Holy of Holies, with its sacred Ark, shadowed by the wings of the Cherubim—the throne and dwelling place of the Shekinah.

SUMMARY.

The main conclusions to which we have been led in this chapter, may be briefly summarised as follows:—

Every object in Nature and Revelation is distinguished by type; and the types united by a law of Analogy, linking the earlier with the later, and the lower with the higher; the Archetypes of the Natural order being found in the Revealed; while the whole typical system converges to a Central Archetype, being Christo-Centric in character; a system combining infinite variety with perfect unity; exhibiting a harmonious plan intelligibly connected in all its parts.

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II. LAW OF ADJUSTMENT.

The Natural and Revealed are connected not only by Analogy, but also by Adjustment or Adaptation.

This great fact does not seem to have received the recognition which it deserves. The references accorded to it in works on the Evidences of revealed religion are frequently meagre and superficial. Yet the relation is of such magnitude and importance as to demand special study and ample exposition. Too often the Adjustment in question is treated hurriedly, assigned a secondary place, and limited to the Adaptation of Revelation to meet the "actual and most urgent wants of men." The *moral Adjustment* is doubtless first in importance, but it is only one of various far-reaching forms of Adjustment connecting the Natural with the Revealed.

In our exposition of the subject we shall show in the first place the prevalence of the law of Adjustment *in Nature*; and then will trace the extension of the law of Adjustment to *the relation of the Natural and Revealed.*

We hope to demonstrate that as in Nature the inorganic is adjusted to the organized, the physical to the mental and moral, and in Revelation the Old Testament is adjusted to the New, the law to the gospel, Judaism to Christianity, so NATURE is adjusted to REVELATION; and further, that as in Revelation the mutual Adjustment of the various parts is such that Christ is the Centre of the whole, so is it in Nature.

In their chief adjustments both Revelation and Nature are CHRISTO-CENTRIC.

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I. Adjustment in Nature.

The Unity of Nature is exhibited in the mutual adjustment of its various parts and laws.

All things in Nature are mutually adjusted. Mass is adjusted to mass, motion to motion, element to element, the non-living to the living, the physical to the mental and moral; even the ceasing to be adjusted is itself adjusted, and death and destruction made the ministers of life and progress.

1. *Adjustment of inorganic masses.*

The solar system is composed of a number of mutually adjusted worlds. In all their magnitudes, motions, and distances, planets are adjusted to the sun, satellites to planets, and planets to planets. The sun is adjusted to the entire system as its luminous and commanding centre.

Why should the lighting and heating apparatus be located at the centre of the system? Why should the sun be 700 times greater in magnitude than all the planets combined? Why should the interior planets be smaller and swifter than the exterior? Why should the speed of every planet be *exactly proportioned* to its distance and magnitude? Why should the planets be placed at distances from the sun which preserve a common ratio? Why should the more distant planets be furnished with moons? Why should the moons increase in number as the planets increase in distance? Why should the Earth have one moon, Mars two, Jupiter five, Saturn eight, etc.? Why should the squares of the periodic times of any two planets have the same ratio as the cubes of their mean distances from the sun? In all these facts we have adjustments, and that on the vastest scale of magnitude.

The *relative positions* of the planets are subject to constant change. Owing to their mutual attraction, every change in their position gives rise to further changes. The places of their nodes, and the inclinations, forms and directions of their

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orbits, are slowly and constantly shifting; but so skilfully have these worlds been balanced by infinite wisdom, that their fluctuations have a self-correcting tendency. The perturbations which affect them are periodic. They reach a maximum value and then diminish, and have no tendency in the lapse of ages to destroy the stability of the system.

"Let it be remembered that each and every one of these bodies exerts an influence upon all the others. There is no isolated object in the system. Planet sways planet, and satellite bends the orbit of satellite, until the primitive curves described lose the simplicity of their character, and perturbations arise which may end in absolute destruction. There is no chance work in the construction of our mighty system; every planet has been weighed and poised, and placed precisely where it should be. If it were possible to drag Jupiter from its orbit, and cause him to change places with the planet Venus, this interchange of orbits would be fatal to the stability of the entire system.

"If the periodic times of two neighbouring planets were exact multiples of the same quantity, or if the one was double the other, or in the exact ratio, then . . . perturbations would arise which would remain uncompensated. A near approach to this condition of things actually exists in the system, and gave great trouble to geometers. It was found, on comparing observations, that the mean periods of Jupiter and Saturn were not constant—that one was on the decrease, while the other was on the increase. This discovery seemed to disprove the great demonstration which had fixed as invariable the major axes of the planetary orbits, and guaranteed the stability of the mean motions. It was not until after Laplace had instituted a long and laborious research that the phenomenon was traced to its true origin, and was found to arise from the near commensurability of the periodic times of Jupiter and Saturn, five of Jupiter's periods being nearly equal to two of Saturn's. In case the equality were exact, it is plain that if the two planets set out from the same straight line drawn from the sun, at the end of a cycle of five of Jupiter's periods, or two of Saturn's, they would be again found in the same relative positions, and whatever effect the one planet had exerted over the other would again be repeated under the same precise circumstances. Hence would arise derangements which would progress in the same direction, and eventually lead to permanent derangement of the system.

"But it happens that five of Jupiter's periods are not exactly equal to two of Saturn's, and *in this want of equality safety is found.* The difference is such that the point of conjunction of the planets does not fall at the same points of their orbits, but at the end of each cycle is in advance by a few degrees. Thus the conjunction slowly works round the orbits

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of the planets, and in the end, the effect produced on one side of the orbits is compensated for on the other, and a mean period of revolution comes out for both planets which is invariable. In the case of Jupiter and Saturn, the entire compensation is not effected until after a period of nearly a thousand years."

Lagrange has demonstrated the existence of a relation between the masses of the planets, their major axes, and eccentricities, tending to preserve the stability of the system. His theorem is as follows:—

"If the mass of every planet be multiplied by the square root of the major axis of its orbit, and the product by the square of the tangent of its inclination to a fixed plane, the sum of all these products will be constantly the same under the influence of their mutual attraction."[1]

"The solar system forms one grand, complicated piece of celestial machinery, circle within circle, wheel within wheel, cycle within cycle, revolutions so swift as to be completed within a few hours; movements so slow that their mighty periods are only counted by millions of years! . . . Mutation and change are everywhere found. All is in motion—orbits expanding or contracting, their planes rocking up and down, their perihelia and nodes sweeping in opposite directions round the sun; but the limits of all these changes are fixed. These limits can never be passed, and at the end of a vast period, amounting to many millions of years, the entire range of fluctuation will have been accomplished. The entire system—planets, orbits, inclinations, eccentricities, perihelia and nodes—will have regained their original values and positions."

2. *Adjustment of Chemical Elements.*

In the number and variety of chemical elements existing in Nature, in their several amounts, and in their mutual "affections, attractions, and forces," there is a remarkable "balance of harmonies."

"The World," says Faraday, "with its ponderable constituents, dead and living, is made up of natural elements endowed with nicely balanced affections, attractions, or forces. Elements the most diverse, of tendencies the most opposed, of powers the most varied, some so inert that, to a casual observer, they would seem to count for nothing in the grand resultant of forces; some, on the other hand, endowed with qualities so violent that they would seem to threaten the stability of creation, yet, when scrutinized more narrowly, and examined with relation to the parts they are destined to fulfil, are found to be accordant with one great

[1] Herschell's "Outlines of Astronomy," article 639.

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scheme of harmonious adaptation. The power of not one element could be modified without destroying at once *the balance of harmonies*, and involving in one ruin the economy of the world."[1]

3. *Adjustment of the Inorganic to the Organized.*

The whole of inorganic nature, whether solid, fluid, or gaseous, is adjusted to the service of organized nature. The distribution of land and sea, the height and weight of the atmosphere, the depth and limits of ocean, the intensity of heat, the circulation of winds, the courses of the seasons, are all regulated with a view to the interests of living creatures.

How admirable the system by which, for example, the surface of the earth is constantly supplied with water, and a fluid essential to the existence of the animal and vegetable creation unceasingly circulated! How admirably every plant, every animal, has been adapted to the elements and circumstances in which it lives—organism to environment, and environment to organism! How close and constant the agreement between the *internal constitution* and the *external circumstances* of organized beings; lungs and air, gills and water, the eye and light, are adapted to each other; the form and strength of animal and vegetable structures have relation to the magnitude of the earth, the force of winds, and the weights to be supported or carried.

4. *The Adjustment of Parts and Functions in Organized Bodies.*

In every plant or animal all the parts, all the organs, all the functions are mutually adjusted. In a plant, for example, the root fulfils one office, the stem another, the leaves another, the flowers another. The development of the root is adapted to the size, character, and position of the plant which it has to support and nourish; the strength of the stem to the weight of the branches; the number, form, and structure of the leaves

[1] "Lectures on Non-Metallic Elements," pp. 290, 291.

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and the extent of their surface, to the water or gases to be absorbed or exhaled; the mechanism of the flowers, and growth of fruits or seeds, to the reproduction of the plant, and the multiplication or preservation of the species.

A study of natural adjustments in the case of animals led the celebrated Cuvier to remarkable conclusions as to the established harmonies existing in every organized form.

"As nothing can exist," says Cuvier, "without the concurrence of those conditions which render its existence possible, the component parts of each must be so arranged as to render possible the whole living being, not only with regard to itself, but to its surrounding relations; and the analysis of these conditions frequently conducts to general laws as demonstrable as those which are derived from calculation or experiment."

"*All the parts of a being having a mutual correlativeness, some traits of conformation exclude others, while some, on the contrary, necessitate others.* When, therefore, we perceive such or such traits in a being, we *can calculate beforehand those which co-exist in it, or those that are incompatible with them.*"[1]

"Every organized individual," says Cuvier, "forms an entire system of its own, *all the parts of which mutually correspond*, and concur to produce a certain definite purpose by reciprocal reaction, or by combining towards the same end. Hence none of these separate parts can change their forms without a corresponding change in the other parts of the same animal; and consequently, each of these parts, taken separately, indicates all the other parts to which it has belonged. Thus, if the viscera of any animal are so organized as only to be fitted for the digestion of recent flesh, it is also requisite that the jaws should be so constructed as to fit them for devouring prey; the claws must be constructed for seizing and tearing it to pieces; the teeth for cutting and dividing its flesh; the entire system of the limbs or organs of motion for pursuing and overtaking it; and the organs of sense for discovering it at a distance. Nature also must have endowed the brain of the animal with instinct sufficient for concealing itself, and for laying plans to catch its necessary victims.

"In order that the jaw may be well adapted for laying hold of objects, it is necessary that its condyle should have a certain form, that the resistance, the moving power, and the fulcrum should have a certain relative position with respect to each other, and that the temporal muscles should be of a certain size; the hollow, or depression, too, in which these muscles are lodged must have a certain depth; and the zygomatic arch, under which they pass, must not only have a certain degree of convexity, but it must be sufficiently strong to support the action of the masseter.

[1] Cuvier's "Animal Kingdom," pp. 3, 4.

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"To enable the animal to carry off its prey when seized, a corresponding force is requisite in the muscles which elevate the head; and this necessarily gives rise to a determinate form of the vertebræ, to which these muscles are attached, and of the occiput into which they are inserted.

"In order that the teeth of a carnivorous animal may be able to cut the flesh, they require to be sharp; more or less so in proportion to the greater or less quantity of flesh which they have to cut. It is requisite that their roots should be solid and strong, in proportion to the greater quantity and size of the bones which they have to break to pieces. The whole of these circumstances must necessarily influence the development and form of all the parts which contribute to move the jaws.

"To enable the claws of a carnivorous animal to seize its prey, a considerable degree of mobility is necessary in their paws and toes, and a considerable strength in the claws themselves. From these circumstances, there necessarily result certain determinate forms in all the bones of their paws, and in the distribution of the muscles and tendons by which they are moved. The fore-arm must possess a certain facility of moving in various directions, and consequently requires certain determinate forms in the bones of which it is composed. As the bones of the fore-arm are articulated with the arm bone, or humerus, no change can take place in the form or structure of the former, without occasioning corresponding changes in the form of the latter. The shoulder-blade also, or scapula, requires a correspondent degree of strength in all animals destined for catching prey, by which it likewise must necessarily have an appropriate form. The play and action of all these parts require certain proportions in the muscles which set them in motion, and the impressions formed by these muscles must still farther determine the form of all these bones.

"After these observations, it will easily be seen that similar conclusions may be drawn with respect to the hinder limbs of carnivorous animals, which require particular conformations to fit them for rapidity of motion in general; and that similar considerations must influence the forms and connections of the vertebræ and other bones constituting the trunk of the body, and to fit them for flexibility and readiness of motion in all directions. The bones, also, of the nose, of the orbit, and of the ears require certain forms and structures to fit them for giving perfection to the senses of smell, sight, and hearing, so necessary to animals of prey. In short, the shape and structure of the teeth regulate the form of the condyle, of the shoulder-blade, and the claws, in the same manner as the equation of a curve regulates all its other properties; and as, in regard to a particular curve, all its properties may be ascertained by assuming each separate property as the foundation of a particular equation, in the same manner a claw, a shoulder-blade, a condyle, a leg, an arm-bone, or any other bone separately considered, enables us to

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discover the description of teeth to which they have belonged ; and so, also, reciprocally, we may determine the form of the other bones from the teeth. Thus commencing our investigations by a careful survey of any one bone by itself, a person who is sufficiently master of the laws of organic structure may, as it were, *reconstruct the whole animal to which that bone had belonged.*"

5. *Mutual Adjustment of Classes in Organised Nature.*

Life is universally diffused over the globe, and the plants and animals composing its kingdoms include an immense and almost incalculable variety. These are possessed of powers of the most dissimilar and unequal description. How great is the contrast, for example, in the vegetable kingdom between the construction and powers of the mushroom and the cedar, the seaweed and the oak, the lichen and the palm! Or, turning to the animal kingdom, how different the organisation and gifts of the mole and the skylark, the fly and the spider, the insect and the bird, the graminivora and the carnivora! The coral grows like a plant, rooted to the same spot, while the swallow, launched like an arrow into space, silently clears twenty leagues an hour! Yet all these creatures, so variously endowed, are members of one vast system in which all the parts are mutually and harmoniously adjusted. In this great system of life, one class *serves* and *balances* another; they supply each other's wants, they restrain each other's excesses; tendencies to over-multiplication are kept in check, peculiarities are preserved, and existence perpetuated.

6. *Adjustment of Lower Kingdoms to Higher: the mineral to the vegetable, and the vegetable to the animal.*

In the three kingdoms—the mineral, the vegetable, and the animal—the vegetable is the *intermediate link.* Supported by the mineral, in its turn it supports the animal. The animal cannot feed upon the mineral; the plant can. The plant transmutes inorganic matter into organized matter suited for animal food. The plant is correlative to the

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animal. And how perfectly is it adjusted to its position! Rooted in the soil, it draws its nourishment from earth and skies. Its trunk, bark, or branch yield covering or shelter to animal existences; its leaves, seeds, or fruits provide food in infinite abundance and variety; its various woods afford housing; its flowers beauty, sweetness, medicine, fragrance.

By an admirable adjustment vegetation purifies the air which has been polluted and poisoned by exhalations from the lungs of animals. Plants and animals breathe, so to speak, the same atmosphere, but the effects produced are opposite in the two cases. While animals absorb the oxygen of the air, plants exhale it. On the other hand, while animals throw off carbonic acid gas, plants absorb it, and fix its carbon in their tissues for the use of animals. Pouchet states that the population of France, for example, throws off by exhalations from the lungs no less than 2,500,000 tons of carbon per annum.[1] This enormous mass of carbon is absorbed by vegetation, and the law of equilibrium is such that plants pour into the atmosphere as much oxygen as animals consume. The oxygenation of the air by plants takes place under the influence of light.

7. *Adjustment of Periodic Times.*

An important part of the adjustment of the internal constitution of organised beings to their external circumstances is that connected with *the periodic times of their changes.* In regulating the revolutions of inert nature, the great Creator has taken into account the wants of living things, and has adapted the periodicity of the one to that of the other. The diurnal and annual movements of the earth, and the periodicity of vital phenomena, have been adjusted with the utmost skill in their mutual bearings. In both plants and animals there is "a cycle of internal functions

[1] "The Universe." Pouchet, p. 426.

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corresponding to the cycle of external causes." The vital and inorganic revolutions are synchronous. Unquestionably the diurnal and annual return of solar stimuli has a causative influence in the regulation of vital periodicity. But no such diurnal and annual effects could be produced as those with which we are familiar, were not plants and animals accurately adjusted as to the sensitiveness of their structures, and the periodic character of the changes connected with their growth and reproduction, to the external periodicity of nature. In the Bridgewater Treatise on Astronomy and General Physics, considered with reference to Natural Theology, Professor Whewell devotes a chapter to this important adjustment.[1]

8. *Adjustment of the Physical to the Mental and Moral World.*

Material nature is adapted to man's mental and moral constitution.

"Here we come in sight of the highest adjustment of all. Sensation, perception, consciousness, and thought; these, if they be not the very essence of life, are at least in their order its highest accompaniments and results. They are the ultimate facts, they are the final realities, to which all lesser adjustments are themselves adjusted."[2]

There is an adjustment between the tastes of man, the powers of his imagination, his love of the sublime and the beautiful, and the attractive features of external nature by which he is surrounded. The rich luxuriancy of vegetation, the loveliness of flowers, the grandeur of mountains, the sublimity of the ocean and of the sky, harmonise with some of the deepest and most powerful feelings of his soul.

There is an adjustment between the faculties of the mind and the order prevalent in nature.

[1] See closing section of this work.
[2] Duke of Argyll, "Unity of Nature," p. 57.

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"The human mind is so constituted as to be able and disposed to observe relations, and especially resemblances, and so to group objects into classes by means of these relations. There is thus, on the one hand a tendency in the human mind to arrange and classify; and on the other hand, the objects around us have multiplied relations one towards another, affording befitting exercise for the intellectual faculty, and enabling it to dispose all individual substances into a series of groups, and to connect all nature into one sublime system."[1]

Having shown in the foregoing paragraphs the prevalence of the law of Adjustment in Nature, we might pause to trace its parallel prevalence in Revelation, where it is equally prominent, as in the adjustment of the law and prophets, and of the entire preparatory system of Judaism, to the system of Christianity erected upon these as on its proper foundation,—an instance of the reign of natural law in the spiritual world. To do this, however, in any adequate degree would too greatly extend our discussion. We pass then at once to the more practically important question of the reign of the law of Adjustment in *the mutual relation* of the Natural and Revealed.

[1] McCosh, "Method of Divine Government," p. 115.

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II. Adjustment in the Mutual Relation of the Natural and Revealed.

The Two Records.

"By piecing the two records together—that revealed in Scripture and that revealed in the rocks,—records which, however widely geologists may mistake the one, or commentators misunderstand the other, have emanated from the same great Author; we learn that in slow and solemn majesty has period succeeded period, each in succession ushering in a higher and yet higher scene of existence; that fish, reptiles, mammiferous quadrupeds, have reigned in turn; that responsible man, "made in the image of God," and with dominion over all creatures, ultimately entered into a world ripened for his reception; but, further, that this passing scene in which he forms the prominent figure, is not the final one in the long series, but merely the last of the preliminary scenes; and that that period to which the bygone ages, incalculable in amount, with all their well-proportioned gradations of being, form the imposing vestibule, shall have perfection for its occupant, and eternity for its duration."[1]

[1] "Footprints of the Creator," Hugh Miller, p. 290.

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I. THE GEOLOGICAL ADJUSTMENT.

The Connection of Geology, History, and Prophecy.

GEOLOGY is the science which gives us the testimony of the rocks as to the distant past of the *globe* we inhabit, and the *races which preceded man* upon it. We may regard its records as having been engraven by the finger of God, on His works, to reveal in due time the story of their genesis, for His glory and for the good of mankind.

HISTORY, on the other hand, is for the most part a human record written in various ways, on monuments and tablets, in buildings and ruins, in institutions and laws, in papyrus rolls and parchments, in documents, papers, and books—the story *of* man *by* man. One section of it, indeed, SACRED HISTORY, differs from the rest as to its authorship, for though equally written by man, yet its writers were inspired. They were divinely guided in the choice of the events to be recorded, and in the manner of recording them. All the "Sacred Writings" were given by inspiration of God, and "holy men of old spake as they were moved by the Holy Ghost." This sacred section of history is the *only* authentic and reliable written history we have *of the very earliest times*, and it has been remarkably *confirmed* by the archæological discoveries of these last days. Thus the only quarter whence testimony to its accuracy *could* arise, furnishes such testimony abundantly, and with constantly increasing clearness.

PROPHECY—which is history written beforehand by Him who sees the end from the beginning—completes the story of the earth and man by telling us what shall be in the future. "At sundry times and in divers manners" God in time past spoke by the ancient prophets of the Old Testament, by His Son, and by the apostles and prophets of the New Testament. They revealed events which were future at the time of the prediction, and which have since become

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matters of history; and also events which lie still in the future of this present age, and beyond that in the "times of restitution of all things," and in the eternal "ages to come."

These three, therefore, *are one*: Geology, History, and Prophecy are three chapters of one book; three sections of one map; three acts of one great drama.

Geology, as far as its facts are ascertained, and its inferences legitimate; history, as far as it is authentic and accurate, and prophecy as far as it is rightly interpreted, reveal by their *conjoint testimony* the entire purpose and plan of God in connection with the earth and man, as far as it has been His will to make it known. One section of the three-fold record studied *alone* might mislead; each is best understood in the light of the other two. No one act of the three-fold drama could afford material to criticise the composition as a whole. The origin of the earth as revealed by Geology, the providence of God as unfolded in History, and the ultimate destiny of mankind and of the globe as foretold by Prophecy, all have their place in enabling us to apprehend the nature, the character, and the ways of God; all are parts of His revelation of Himself to His creatures, and their combined testimony only presents the full truth.

Geology is almost the youngest of the sciences, though its office is to interpret the oldest of the records; it is not yet a century old. Astronomy dates back to the earliest dawn of history; but the ancients, though they observed some isolated facts, and occasionally hazarded some ingenious conjectures, knew nothing of geology as a science, and had no conception of the system of creation which it reveals. The rocks were nearer to them than the stars, and more easy to examine; yet they systematized, studied, and recorded the facts of astronomy, and barely noticed the most superficial phenomena of geology. It was reserved for later days to read the record of the rocks; and the rapid growth of this wonderful

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science to the degree of perfection it has already attained, is a noteworthy fact. The idea of the *infinite in space* had, by the discoveries of astronomy, long been familiar to mankind; the *infinite in duration* has been brought home to the minds of men by the study of the facts of geology. The childhood of the world required easy lessons; the visible heavens and the surface of the earth gave it more to read than it could decipher. As the race matured, the true system of the material universe dawned upon it, as vaster and more marvellous far than had been previously imagined; and now, in ripe full age, the men of the nineteenth century are led into new paths of knowledge, which open up worlds of thought and inquiry, and teach amazingly more of God than other ages could have imagined, as to the nature and duration of His working; as to the strength and scope of His purposes, and as to the wisdom of His plans.

I. *Outline of the facts of Geology.*

We are acquainted with the composition and structure of the solid crust of the earth by observation for a depth of about from ten to twenty miles; not, of course, by actual descent; the deepest mine in the world being little more than half a mile; but in consequence of the fact that the lowest rocks composing the earth's crust, as well as all those intermediate between them and the surface, have in certain places, by volcanic and other action, been thrown up, broken open, and arranged so as to display portions of the entire series in their order. Though originally horizontal in position, and superposed on each other, they have been burst through and tilted up at various angles, so that the lowest and oldest among them are found forming the summits of the loftiest mountain chains. These layers, or strata of rock, upraised by volcanic convulsions, present, of course, thin broken edges on the surface, and hence their composition and arrangement are open to inspection.

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A widely-extended and careful examination of such strata in all parts of the world shows that the rocks composing the earth's crust consist of two distinct classes; one originated by the action of fire, and the other by the action of water, called igneous and aqueous rocks. The igneous rocks are composed of molten and crystalline materials; the aqueous or fossiliferous rocks of sedementary substances which have been deposited by water; just as sand, gravel, and mud, are now deposited in the deltas of rivers, and the beds of lakes and oceans.

The igneous rocks are of three kinds, and bear marks either of absolute fusion, or of having been affected and altered by excessive heat.

1. The first section include the granites, with syenite, green stone, serpentine, porphyry, felspar, and others. They have a crystalline, glassy texture, and are totally destitute of fossil remains. Though first in formation, and lowest in position, they form the mass of the mightest mountains which rear their snowy peaks into the sky.

2. The second class of igneous rocks, called metamorphic, or altered, are composed of the detritus of the former, worn down by water, and deposited in strata, but altered by heat after their deposition. They are as destitute of fossils as the first or plutonic group.

3. The volcanic rocks, comprising the lavas, trachytes, basalts, etc., are the ejections of modern volcanoes, and though found on the surface of the earth, are of course thrown up from the depths, and are out of their order, and overlying more recent deposits. The two first classes of rocks belong to the azoic ages, or to the time when life had not yet appeared on the earth, and they are destitute of fossil remains.

THE AQUEOUS, or SEDIMENTARY ROCKS, are of an entirely different character. They bear no marks of fusion or heat,

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and have evidently been formed from the debris of the previously mentioned rocks by the action of water, which, after holding their constituents in solution for a time, has deposited them in layers, or beds, or "strata," over the igneous rocks, or over one another. The materials of which they are composed are very various, and they abound in fossilized remains of animal and vegetable organisms. There are twelve or fourteen groups of these rocks, six or seven miles in perpendicular thickness, composed of hundreds of alternating layers of different kinds, and containing countless myriads of fossil remains. They include the sandstones, limestones, conglomerates, lias, oolites, clays, gravels, etc., which underly the alluvial deposits now in process of formation. Organic remains in rich abundance are found in all the sedimentary or aqueous rocks. While they were yet in process of deposition, and soft in consistency, these strata received and embedded myriads of shells, skeletons, coverings, and other portions of animal frames, as well as vegetable growths. These remains of plants and animals are found arranged in order, each sort in its own strata, *like the classified specimens in the drawers of a cabinet.* Certain strata are almost entirely composed of them, and others very largely so. Those of vegetable origin are the lignite, coal, shales, etc., of various ages; and those of animal origin the encrinite marbles, mountain limestones, greensands, chalks, corals, and nummulite rocks. There are nearly a hundred strata which are in this way wholly or largely the product of past *life* upon the globe. The stratified formations are piled on one another, almost like courses of masonry, and have at various times been disturbed by the intrusion of unstratified crystalline rocks, and variously affected by elevations, depressions, fractures and dislocations.

Each system of strata has fossil remains peculiar to itself. The mineral formation and the organic remains go together; the one is characteristic of the other.

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This fact is one of the greatest discoveries of modern times, and we owe it to an English observer, William Smith, who died in 1839, at the age of seventy-one, after having lived a most useful, laborious, and scientifically successful life, though his name is comparatively little known, save among geologists. He has been called the father of English geology, and his collections are now in the Kensington Museum. It was he who first demonstrated that the order of the strata forming the earth's crust is never inverted, and that the position of any given stratum in the series, may be determined by the character of its fossils.

Several great groups of animals and plants, completely independent of each other, have existed and passed away in succession before the creation of the races that now occupy the earth. So unlike were these in their structure and habits that they could not have existed together in the same climate and with the same surroundings; each was adapted to an altered condition of the globe. About 80,000 species of animals and plants have been found in the rocks in a fossil condition, and fresh discoveries are being continually made. The observations from which inferences must be drawn are consequently by no means complete in the case of this science, which is in a growing condition, every year adding to its facts. Three-fifths of the surface of our planet are now concealed beneath the ocean, and a large part of the remainder is covered with perpetual snow and ice. Only one-fifth of the world is fit for human habitation, and but a small portion of that which might be examined, has actually been so by geologists, hence the real number of animals and plants entombed in the crust of the earth is not known, and the above figure is, of course, only an approximation to the fact. But while this defectiveness of the record must be borne in mind, there is quite a sufficient number of well-established facts and conclusions to warrant the drawing of certain inferences important to our theme.

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II. *Geology teaches that the antiquity of the Earth is great beyond conception.*

This fact cannot be denied or questioned. The duration of human experience and observation is too brief to furnish even a standard by which to estimate the geologic ages. The lapse of time revealed by this science, like the extent of space revealed by the sister science of astronomy, is all but infinite, and overwhelms the mind by a sense of the comparatively ephemeral character of everything connected with human history. The laws which governed geologic changes were the very same laws that are in operation round us today. We can watch their effects, we can observe geologic strata in process of formation, we can note the time occupied in a certain change, and we cannot refuse the conviction that in other ages it must have taken about the same time. We may make wide allowances for modified circumstances, but the broad features of the chronology of the past, implied in the Geologic record, cannot be gainsaid. We can observe the rate at which the Delta of a great river grows; how long it takes to deposit a foot of sediment in the sea; at what rate lakes and rivers fill up, and at what rate mountains are worn down by the action of rain and frost and running waters. We can note the rate of growth of animals and trees, and we have an intuitive conviction that in the past their growth and decay were regulated by the same laws, and took the same time as now. Applying these principles to the facts inscribed in the record of the rocks, we are startled to see the chronological results to which they lead us.

To attempt to express the duration of the geologic ages in thousands or millions of years would convey as little real idea to the mind as do arithmetical expressions of astronomic distances. If we talk of fifty or a hundred millions of years, no real information is conveyed, and so complex are the elements of the problem that Geology cannot yet, and

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probably never will, be able to fix the actual age of the earth with any approximation to accuracy.

Now here we have then a lesson on that great and incomprehensible subject of Eternity. These long, long ages, succeeding each other in slow and solemn march, witnessing the birth, growth, and decay of creation after creation, each comprising countless generations of living creatures; these rolling centuries and millenaries—this all but endless chain of æons, which bewilders thought and exhausts even imagination in the attempt to grasp its vast extension,—What is it? Only the threshold of *Eternity.*

We talk of eternal life, but what does it mean? We speak of eternal redemption, but what does that signify? We read of the ages to come, the ages of ages. May not the fact that such ages of ages as these revealed by Geology *have already rolled over our earth*, help us a little in the conception of the future?

It is worth while to study Geology, even if only to a slight extent, for the sake of gaining impressions a little less inadequate than those of the multitude on this great theme. To take in hand a fossil shell, and imagine the course of the life history of its little tenant, to look at the rock in which it is embedded, and note myriads upon myriads of its fellows; to remember that such rock may be a mile in thickness, and all *made of such shells*, implying thousands of thousands of generations of such little animals; and then to realize that rock itself to be but a tiny fraction of the earth's crust, and ask oneself how long must that crust have been in forming? To grasp the thought of such extended duration as having already elapsed in connection with our world and solar system, is to get a new and truer view of the duration of the *life and of the love of God in Christ Jesus our Lord.* For we must go back to a period *anterior to those ages* to measure the duration of God's purposes of love and mercy towards mankind. Christ is the Lamb slain "from the foundation of

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the world." "In the beginning was the Word!" *His work* helps to give some idea of *His age*, His antiquity, His everlastingness! "For Thou, Lord, in the beginning didst lay the foundation of the earth, and the heavens are the work of Thine hands. They shall perish, but Thou remainest, and they all shall wax old as doth a garment, and as a vesture shalt Thou fold them up, and they shall be changed, but Thou art the same, and Thy years shall not fail."

"Before the mountains were brought forth, or ever Thou hadst formed the earth and the world, even from everlasting to everlasting Thou art God!"

III. *Geology, while it takes us back very far, teaches us nothing of the origin of the earth.*

The earth has no voice to tell us how or when it was first made. Life is silent as to its own beginnings.

"We can go very far back, and determine many of the remote circumstances of the past series of events; ascend to a point which seems to be *near* the origin . . . but philosophers never have demonstrated, and so far as we can judge, probably never will be able to demonstrate, *what was that primitive state of things from which the progressive course of the world took its first departure.* In all paths of research, when we travel far backwards, the aspect of the earlier portions becomes very different from that of the advanced part on which we now stand, but in all cases *the path is lost in obscurity* as it is traced backwards towards its starting point; it becomes not only invisible, but unimaginable. It is not only an interruption, but an abyss, which interposes itself between us and any intelligible beginning of things."[1]

When we have analysed matter into its ultimate atoms, and determined all their properties and powers, we find no evidence even in them that they are the beginning any more than in the most complex organisms. The properties of these atoms of matter are wonderful! They are the cause of the phenomena of nature and of most of its laws. Sir John Herschel asserted that "atoms have all the appearance

[1] Whewell's "Indications of the Creator," p. 166.

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of manufactured articles." How, then, can they do otherwise than lead the mind directly to the conception of a Maker? So with life. The smallest speck of living matter, utterly invisible to the unassisted eye, is in itself a world of wonders, instinct with powers of inconceivable character, and raises still more urgently the question, *Whence?* That living atom can appropriate, assimilate, and quicken into living matter the lifeless particles around it. It can grow, and continue to grow, until it has produced at last the complex and wonderful frame of a human being with its varied physical and mental powers, capable in its turn of producing others like itself, and that through endless generations. All this power lies hidden in an infinitesimal speck of living matter, devoid of all apparent structure or machinery. We can see whither it goes, but we cannot tell whence it came. Interrogate Nature as we will about her own beginning, she can do no more than lead us to the *Ultima Thule* of observation, and then point upward!

The office of science being to observe, record, classify, and study the facts of Nature, it can throw no light beyond the point at which the operations of Nature cease to be visible. It cannot deny Creation and a Creator. It can pronounce no judgment as to the first beginning of the physical universe. That lies beyond the ken of science, but the myriad exhibitions of design and purpose, the mutual adaptation of widely different things and processes, of which the student of science has taken note in pursuing his investigations, would all lead him to the conception of an all-wise and Almighty Creator—the Great and only adequate First Cause of all that is, or ever has been. It is useless for evolutionists to laugh at the argument from design, and to say it proves nothing. As long as axiomatic truths command the common consent of mankind, so long will this argument carry absolute conviction to the minds of unprejudiced observers. Old as it is, it is as powerful now as ever, and nothing can weaken its force. One

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single well-marked instance out of the countless multitudes that may be adduced is enough to decide honest common sense. Take, for example, the fact of certain fishes provided by their Maker, as a means of defence, with a *galvanic battery*, from which they may give shocks of electricity to their enemies.

The Electric Ray, or Torpedo, has been provided with such a battery, which, while it closely resembles, yet in the beauty and compactness of its structure it greatly exceeds the batteries by which man has now learned to make the laws of electricity subservient to his will. In this battery there are no less than 940 hexagonal columns, like those of a bee's comb, and each of these is subdivided by a series of horizontal plates, which appear to be analogous to the plates of the Voltaic Pile. The whole is supplied with an enormous amount of nervous matter, four great branches of which are as large as the animal's spinal cord, and these spread out in a multitude of thread-like filaments round the prismatic columns, and finally pass into all the cells.[1] "A complete knowledge of all the mysteries which have been gradually unfolded from the days of Galvani to those of Faraday, and of many others which are still inscrutable to us, is exhibited in this structure."

Well may Mr. Darwin say, "It is impossible to conceive by what steps these wondrous organs have been produced. We see the purpose, that a special apparatus should be prepared, and we see that it is effected by the production of the machine required; but we have not the remotest notion of the means employed. Yet we can see so much as this, that here again other laws, belonging altogether to another department of Nature—laws of organic growth—are made subservient to a very definite and very peculiar purpose."

And Nature presents us with countless millions of such

[1] "Anatomy of the Vertebrata." Prof. Owen. Vol. i. p. 350.

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adaptations wrought out with similar skill! Reason, as truly as Revelation, requires us to bow before the Creator of all these, and however imcomprehensible the conception of Creation may be, to conclude that "the worlds were framed by the Word of God, so that things which are seen were not made of things which do appear" (Heb. xi. 3).

IV. *Geology bears clear testimony to a beginning of life, a commencement of organized existences.*

Whether the nebular hypothesis be true or not, there is clear evidence that the materials of which the earth's crust is composed, existed at first in a state of fusion from extreme heat. It is probable that the earth assumed the form which it now has of an oblate spheroid, from rotation on its axis when in a fluid state. The lowest rocks bear witness to having once been in a state of fusion, confirming the theory of an original central heat sufficient to liquefy all the substances of which the globe is composed. Radiation into space would by degrees cool the surface of this globe, and form a thin crust, which would ever and anon be broken through by the repressed heat, or crumpled up into ridges as it fell in when the contained mass shrank in bulk while cooling. Thus would be formed those earliest rocks and mountain ridges, which worn down by chemical and mechanical action, yielded sediments to be deposited by the primeval seas, and to be influenced and changed by the still tremendous internal heat, and formed into the metamorphic rocks, which overlie the granites and other igneous rocks. These metamorphic rocks were again in their turn ridged and broken up by shrinkage and upheaval, and so the process continued apparently, until the earth's crust became by degrees solid and thick enough to repress the internal forces, and cool enough to sustain life. Volcanic action, more or less violent, continued (as to a small extent it continues still), altering the surface by earthquakes, upheavals, and depressions, making continents oceans, and

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oceans continents, sending up through the disrupted strata jets of liquid melted matters from the interior to be poured from volcanic craters far and wide over the surface. Most tremendous and complex do the earliest changes of the surface of the globe seem to have been, far back in the ages that antedate even geologic time. Neither earth, air, nor sea were then in any condition to support life! Boiling oceans and steam-laden atmosphere, foul with sulphurous gases, mineral acids, and an earth that quaked and shook continually, from the effects of the tremendous forces pent up within, such was no scene for organized existence, nor is any trace of such discoverable in these Azoic ages.

"*The total absence of organic remains throughout those lowest portions of these strata, which have been called primary*, is a fact consistent with the hypothesis which forms part of the theory of gradual refrigeration, viz., that the waters of the first-formed oceans were too much heated to have been habitable by any kind of organic beings.

"*In these most ancient conditions, both of land and water, geology refers us to a state of things incompatible with the existence of animal and vegetable life;* and thus, on the evidence of natural phenomena, establishes the important fact that we find *a starting point, on this side of which* all forms, both of animal and vegetable beings, must have had a beginning."

"Those who contend that life may have existed during the formation of the primary strata, and the animal remains have been obliterated by the effects of heat, on strata nearest to the granite, *do but remove to one point further backwards the first term of the finite series of organic beings*; and there still remains beyond this point an antecedent period, in which a state of total fusion pervaded the entire materials of the fundamental granite; and one universal mass of incandescent elements wholly incompatible with *any condition of life* which can be shown to have ever existed, formed the entire substance of the globe."[1]

"The consideration of the evidences afforded by geological phenomena may enable us to lay more securely the very foundations of natural theology, inasmuch as they clearly point out to us a period antecedent to the habitable state of the earth, and consequently antecedent to the existence of its inhabitants. When our minds become thus familiarized with the idea of *a beginning and first creation of the beings we see around us*, the proofs of design which the structure of those beings affords carry

[1] Buckland, Bridg. Tr. p. 47.

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with them a forcible conviction of an intelligent Creator, and the hypothesis of an eternal succession of causes is thus at once removed. *We argue thus: it is demonstrable from geology that there was a period when no organic beings had existence; these organic beings must therefore have had a beginning subsequently to this period, and where is that beginning to be found but in the will and fiat of an intelligent and all-wise Creator?*"[1]

The same conclusion is stated by Cuvier to be the result of his observations on geological phenomena: "Mais ce qui étonne davantage encore, et *ce qui n'est pas moins certain*, c'est que *la vie n'a pas toujours existé sur le globe, et qu'il est facile à l'observateur de reconnaître le point où elle a commencé à déposer ses produits.*"[2]

We are driven by such facts and reasonings as these to reject the absurdities of an endless series of organisms. Life on this globe is not eternal; it had a beginning on which we can, as it were, put the finger. At a certain definite chronological period in the distant past, though we cannot fix its date, life began to be. Here, if never before, we are brought face to face with God. Evolution may march backwards through the ages, and explain away every marvel met on the road; but at this point, the introduction of life, it is arrested. Here at least is the finger of God. Whence this new thing? Whence this wonderful, inexplicable power? Matter says, "It is not in me!" Law says, "It is not in me!" The Spirit saith, "In HIM was life." Christ was its source. He who in the beginning was with God, and was God.

V. *Geology shows that there have been several distinct successive economies of life, terminating in man.*

Each geologic formation contains organic remains of plants and animals peculiar to itself, and not found in the formations above or below it. The fossils of one formation are related to those of the adjoining one, more nearly than

[1] Buckland, Bridg. Tr., p. 49.
[2] Cuvier, "Ossemens Fossiles, Disc. Prelim.," 1821, vol. i. p. 9.

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to those of more distant strata; and though some few species lived on through several different ages, and even into our own day, *the groups are on the whole distinct*, and exhibit marked progress from a simpler and lower to a more complex and higher type of organization.

"And as in the history of man several grand periods have been established under the name of ages, marked by peculiarities in his social and intellectual condition, *and illustrated by contemporaneous monuments*, so in the history of the earth also are distinguished several great periods, what may be designated as the various *ages of Nature, illustrated in like manner by their monuments, the fossil remains*, which by certain general traits stamped upon them, clearly indicate the eras to which they belong.

"We distinguish four ages of Nature, corresponding to the great geological divisions, namely:—

"1. *The Primary or Palæozoic Age*, comprising the upper Silurian and the Devonian. During this age there were few air-breathing animals. The fishes were the masters of creation. We may therefore call it the *Reign of Fishes.*

"2. *The Secondary Age, comprising the Carboniferous, the Trias, the Oolitic and the Cretaceous formations.* This is the epoch in which air-breathing animals more extensively prevail. The reptiles predominate over the other classes, and we may therefore call it the *Reign of Reptiles.*

"3. *The Tertiary Age*, comprising the Tertiary formations. During this age, terrestrial mammals of great size abound. This is *the Reign of Mammals.*

"4. *The Modern Age*, characterised by the appearance of the most perfect of all created beings. This is *the reign of man.*"[1]

Two points should be especially noted in connection with these facts; first, that there was a succession of distinct economies of life; and secondly, that each was marked by advance and progress in many directions, as regards the preceding one. The various great groups of vegetable and animal life did not appear simultaneously, but one after another, with the lapse of ages intervening; and when each new one appeared, it was a marked advance on the last, until man, the last and highest crown of the work of creation, was

[1] Agassiz and Gould, "Comp. Physiol.," pp. 396-7.

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placed on the apex of Nature's pyramid. Such is the testimony of the rocks, and such, too, is the witness of the Mosaic Record. Not only was the formation of the globe itself by stages, but the introduction of existing life upon it was also by stages. The "one day," "a second day," "a third day" principle of the first of Genesis is demonstrated by Geologic research to have guided the process. What Almighty power *might* have done, we cannot decide; what it did do is clear: it operated gradually; it attained its end by successive steps, and each step was in advance of the last. Long pauses and intervals of apparent retrogression intervened between the distinct stages of the upward and onward progress, until the *end*, clearly aimed at from the beginning, was attained at last in the introduction of man, Creation's head and lord, into the scene.

VI. *Geology teaches us that man is the archetype of the animal Creation.*

Fishes, reptiles, birds and mammals, as they successively made their appearance on the earth, presented in their bodily frames nearer and nearer approaches to the more perfect structures which characterise man. A prophetic plan ran through the whole series of animals comprising the great order of vertebrata or backboned creatures; from the beginning the advent of man on the scene was dimly foreshadowed. These animals have all the same type of skeleton, the same sort of arrangements to protect the eye and the ear, a brain case of bone, and limbs adapted to the functions needful to their well-being. God, who made man to have dominion, and crowned him with glory and honour, foresaw and foreordained his advent into the world, and the period of it. He began to prepare the earth for its heir vast ages beforehand, and His creative power glorified itself by filling the scene during its preparation with myriads of living creatures. Among them was a series—vastly varied in size

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and form—which were distinctly precursors of man: "the final and foreseen product of the one mighty plan; the last in time but the first in contemplation of Him who called them all into being." Precedent vertebrata shadowed forth certain peculiarities of frame and of physical powers, which have their full and evidently intended significance brought out and manifested only in man. When he appears on the scene which had been so long prepared, and, as it were, waiting for him, the consummation of the earthly type comes out—in a goodly frame, with gait erect: in eyes to contemplate, and in hands to minister to the wants of the individual and of his fellows.

"The recognition of an ideal exemplar in the vertebrated animals proves that the knowledge of such a being as man must have existed before man appeared, for the Divine mind which planned the archetype also foreknew all its modifications. The archetype idea was manifested in the flesh long prior to the existence of those animal species that actually exemplify it. To what natural laws or secondary causes the orderly succession and progression of such organic phenomena may have been committed, we are, as yet, ignorant. But if, without derogation of the Divine power, we may conceive of the existence of such ministers, and personify them by the term Nature, we learn from the past history of our globe that she has advanced with slow and stately steps, guided by the archetypal light, amidst the wreck of worlds, from the first embodiment of the vertebrate idea under its old ichthyic vestment, until it became arrayed in the glorious garb of the human form."

VII. *Geology shows us that during all the long succession of ages prior to man's appearance on the Earth, God was making preparation for his physical wants.*

Infinite wisdom, forethought, and goodness, are most clearly and strikingly displayed in the stores of all things needful for human life and comfort, which are laid up for men's use in the treasure chambers of the earth. Our existence, as well as our comfort, depend on the accumulations made for us long before we were brought into being. "The children should not lay up for the parents, but the parents

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for the children." Our heavenly Father has fully attested His parental care for His offspring by the varied and ample resources He prepared beforehand for their use.

"It is impossible to form a more magnificent conception of infinite wisdom than that which Geology exhibits, representing the Supreme Being as first elaborating and perfecting our earth into one sphere of blessings, erecting on a foundation of granite a vast superstructure of sandstones, limestones, clays, coal, and the various substances known as rocks; injecting their fissures with minerals and metallic ores; then by volcanic agency bringing these varied deposits near the surface, and so diversifying the soil as to present every variety of condition required for its mineral, agricultural, and economical cultivation; tempering the climate to the degree best adapted for human existence; peopling it with animals suited to the use of man, for supplying him with food, and assisting him in his labours; and finally calling him into existence to take possession of a world which had been prepared for his reception and enjoyment."[1]

Here is one explanation of the length of the geologic ages. As far as we can comprehend the complex problem, it needed a lapse of time all but infinite to make such a world out of such materials, in accordance with the laws which are actually impressed on matter; and in the wonderful, complicated, and long-continued work of preparation which during those ages God carried on, He was preparing for this age an exhibition that all might understand of His wisdom, His power and His goodness, just as He is now preparing, in His redeeming operations in the Church, a similar exhibition of "the exceeding riches of His grace" for the ages to come.

In the distribution of metallic veins through the strata of the earth there are peculiar indications of forethought for man, and abundant evidence that irregular volcanic action has been employed as a useful agency in accordance with intelligent purpose and predetermined plan. Metals are so useful to mankind, and in their various properties so especially adapted to his present condition, that their distribution forms

[1] Richardson's "Geology and Palæontology," p. 55.

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an important item of his physical well-being. Without the use of metals man must remain in a semi-savage condition. Agriculture of an efficient kind requires the use of iron; tilling the ground, ploughing, digging, reaping, mowing, pruning, grafting, all require tools or instruments, for the manufacture of which no substance is a substitute for metal. The mechanical arts and trades are equally dependent upon its use; utensils and vessels for cooking, and other domestic use, are poor things till metals are employed. No permanent or convenient houses or edifices can be constructed without them, no shipping or navigation, no machinery or scientific instruments. Civilization, refinement, comfort, progress in the arts and sciences, are all dependent on the existence and accessibility of the stores of iron, brass, lead, and other metals and minerals laid up in the earth. Now if these metals had been massed in quantity in one part of the globe, and altogether absent in other parts (as are certain rocks), if they had been so deep down as to be practically out of reach, or if they had been distributed through the strata in such minute particles as would not repay the labour of working them, how fatal a difference it would have made to mankind! The total quantity of these precious metallic substances existing near the surface is, compared to the other constituents of the earth's crust, *small*, but they are found running in veins through the rocks in every part of the world.

The gracious Creator, foreseeing the use which man would make of these substances, and the benefit he would derive from them, so arranged their distribution as to put some of them within reach in all parts of the globe. Although the disturbances which produced the cracks and crevices in the rocks, where the metals run, may have been caused long before the creation of our species, yet who can doubt that both in permitting these to be made, and then in causing them to be filled in this beneficial manner, God had in view the good of the last and most perfect of His creatures?

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But there is a mineral substance more precious than silver or gold, and prepared in far richer abundance for human use, which must not be overlooked in this connection. Next to the metals, if not indeed even before them in point of importance to the comfort and progress of mankind, are the great deposits of the carboniferous era—the vast stores of mineralized forests which form our coal beds. The value of coal to England, to say nothing of other lands, is enormous. Something like *one hundred millions* of tons of this precious concentration of light, and heat, and power, are now raised from the depths of our coal mines annually. Among the uses to which this store of fuel is put, one of the most important is the working of steam engines. Tens of thousands of these do each of them the work of from one to two thousand horses labouring all the time. This power is largely applied in its turn to move machinery; and it has been calculated that an amount of labour, which, if done by hand, would require *four or five hundred millions of men*, is accomplished by them. Our coal stores multiply consequently the powers of man a hundredfold; and they are besides essential to his comfort. What would our cold winters, with their long dark nights, be without the cheerful coal fire, and bright gas lights, which we owe to the carboniferous formations of bygone ages?

In the Midland counties, and in South Wales and elsewhere, the strata associated with coal formations increase their value. Rich beds of iron ore are found in the strata, alternating with the coal beds; while just below is found a substratum of limestone, which supplies the third material required as a flux to reduce the ore to a metallic state. The result of these geologic conditions is, that where they exist vast populations are sustained by flourishing industries in localities where otherwise only a very small fraction of the number could live. These fossilized Calamites and Lepidodendra and Sigillaria, Coniferæ and Araucarias, flourished in the swamps and forests of the primeval earth, were buried in

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water under the detritus of neighbouring lands, and remained there entombed under enormous pressure for ages. During this entombment chemical changes, and new combinations of their vegetable elements, converted vegetable into mineral substances, plants and trees into coal. Then upheaved, and broken into comparatively small fields in the process, these coal measures were so placed that they became available to man, the very "faults" and breaks in their continuity being an advantage by interposing walls of clay—impervious to water—between different portions of the beds. Without this a coal mine would soon become unworkable from the inflow of water.

Time would fail us to point out all the similar adaptations of the earth's crust to meet the physical wants of mankind—the arrangements for the storage and supply of water, the general conformation of ocean and continent, the composition of soils, etc. But it may safely be said that social and commercial prosperity are largely dependent on geological dispositions, and that the Anglo-Saxon race owes its present high position in the earth not solely to its moral qualities, but to some extent also to the geological structure of the island which gave it birth—"a land whose stones are iron, and out of whose hills we may dig brass."

In these and countless similar instances which might be adduced, we see infinite wisdom, forethought, and goodness at work preparing for human necessities, before man had any being. And can we believe that physical needs alone were foreseen? Has man no deeper necessities, no higher wants? Shall Divine benevolence provide for the body and neglect the soul? No! As we shall see, ample evidence exists that God took into account the intellectual and moral requirements of mankind. A salvation for the lost, an atonement, and a kingdom were "prepared from the foundation of the world." [1]

[1] Matt. xxv. 34.

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VIII. *An anticipation of death—the wages of sin, runs through the Geologic ages.*

Human death is the result and penalty of human sin. No truth is more clearly stated in Scripture than this. What would have happened to the race had our first parents not sinned, is not revealed, and mere speculation is idle. The law of reproduction seems to us to imply the law of decay, because in our experience the two have ever been associated. It does not appear, however, that there is any necessary connection between the two. The Universe affords abundant space for colonization if the world became too full, and men *have* been translated without seeing death. Access to the tree of life was denied to fallen man, lest he should perpetuate for ever a sinful existence, but it is to be freely granted to redeemed men in the future, for "the leaves of the tree are for the healing of the nations," and there shall then be no more death. "The wages of sin is death, but the gift of God is eternal life through Jesus Christ our Lord."

But though it is clear that by one man sin entered into the world, and death by sin, and so death passed upon all men, it is not so clear why death reigns now in the animal creation, nor why it should have done so throughout all the long geologic ages. It did so, however, of this there can be no question. The crust of our earth is one great cemetery of perished organisms. The buried forms that fill its various strata are as countless as the sands of the sea-shore. Over generation after generation, and world after world, as we have seen, death has thus reigned. Not individuals only, but species without number, have died out and become extinct; and the constitution of nature is such that it is clear nothing else was ever contemplated by the Creator. Why all this death before sin? Why a *system* of which it seems to be an integral part? Why the suffering that must needs accompany it to sensient beings? Why was not the dark shadow

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of death omitted altogether from the fair picture of Creation? May it not have been because this earth was *formed for man*, and because Infinite Omniscience foresaw that *man would sin?* There was a needs-be that the system of things which was to issue in man's creation and Redemption should be framed on these lines. Death was to be the penalty of human sin, and by death only the new eternal life was to come to man. Consequences often precede their causes, though the statement sounds at first like a contradiction in terms.

"Vast realms of consequences, and these as real as any, precede, and in rational order ought to precede, their grounds or occasions. Indeed, it is the peculiar distinction of consequences mediated by intelligence that they generally go before and prepare the coming of events to which they relate. Whoever plants a state, erects a prison, or makes the prison to be a necessary part of his plan; which prison, though it be erected before any case of felony occurs, is just as truly a consequence of the felonies to be, as if it were created afterward, or were a natural result of such felonies. All the machinery of discipline in a school, or an army, is prepared by intelligence, perceiving beforehand the certain need of discipline hereafter to appear, and is just as truly a consequence of the want as if it were created by the want itself, without any mediation of intelligence.

"So also any commander who is managing a campaign, and has got hold of the intended plan of his enemy, will be utterly unable to project a plan for himself, or even to order the manœuvres of a day, so as not to show a looking at the secret he has gained, and also to prepare innumerable things that are in some sense consequences of it. What, then, shall we look for, since God's whole plan of government is, in some highest degree, *a campaign against sin*, and is from the beginning projected as such, but that all the turnings of His councils and shapings of His creations should have some discoverable reference to it? And how, in that case, could they be more truly and rigidly consequences of it? It is by no fiction, therefore, and as little by any fetch of ingenuity, that we speak of *anticipative consequences*; for they are the unfailing distinction of every plan ordered by intelligence; every system or scheme comprehended in the moulds of reason will disclose, in the remotest and most subtle beginnings, marks that relate to events future, and even to issues most remote.

"This, too, so far from being any subject of wonder, is even a kind of necessary incident of intelligence. For everything that comes into the view of intelligence must also pass into the plans of intelligence. How

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can any intelligent being frame a plan so as to make no account of what is really in his knowledge? Or how could the all-knowing God arrange a scheme of providential order, just as if He did not know the coming fact of sin, eternally present to His knowledge? Mind works under conditions of unity, and, above all, Perfect Mind. What God has eternally in view, therefore, as the certain fact of sin, that fact about which all highest counsel in His government must revolve, and upon the due management of which all most eventful and beneficent issues in His kingdom depend, must pervade His most ancient beginnings, and crop out in all the layers and eras of His process, from the first chapter of creative movement, onward. As certainly as sin is to be encountered in His plan, its marks and consequences will be appearing anticipatively, and all the grand arrangements and cycles of time will be somehow preluding its approach, and the dire encounter to be maintained with it. To create and govern a world, through long eras of time, and great physical revulsions, yet never discover to our view any token that He apprehends the grand cataclysm of sin that is approaching, till after the fact is come, He must be much less than a wise, all-perceiving Mind. Much room would be left for the doubt, whether He is any mind at all; for it is the way of mind to weave all counsel and order into a web of visible unity."[1]

This anticipative recognition of human sin in the plan of creation explains the death, deformity, prey, disorder, destruction, groanings, convulsions, disasters of the geologic ages. They were the tolling of the funeral knell before the hearse approaches—the revelation that the great Creator was not taken by surprise, when man, made in His own image, and endowed with His own free-will, rebelled against his Maker: "brought sin into the world with all our woe," and introduced into the moral and spiritual universe foul disorder and confusion. We conclude, then, that man's sin being foreseen from the beginning, and his consequent mortality, the world was ordered by the Creator on *the plan of mortality*. Mortal and immortal creatures could not co-exist in one state of things, nor could a world of undying creatures be suddenly changed into a world of dying ones, on the fall of man. Death, therefore, entered into the original plan, and "the creation was made subject to vanity, not willingly," but on

[1] "Nature and the Supernatural." Horace Bushnell, D.D., pp. 134–7.

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sinful man's account. It was fitting that death should reign in the earth that was to be the scene *of that matchless death*, at which the sun was darkened, the rocks rent, the graves opened,—the death that destroyed death, and brought life and immortality to light. If man's sin involved the death of the Son of God, well might it involve the death of all terrestrial creatures!

IX. *In the order of succession of its animal kingdoms Geology presents us with a remarkable foreshadowing of human history.*

The geologist who is familiar with the facts and philosophy of History, and the historian who is familiar with the facts and philosophy of Geology, must alike be struck with the similarity of plan which runs through the series of facts recorded by these two widely different sciences. In both we may trace—

> Throughout the ages one harmonious plan,—
> The reign of monsters, then the reign of man.

Geology presents us with long-continued ages, running back through apparently interminable time, during which one great animal kingdom after another rose, culminated, and was destroyed, and succeeded by a superior one. The chronology of these kingdoms cannot be measured by years, or by centuries, nor even by millenaries, but each had its appointed period.

The reign of fishes began in the Silurian age, and their remains are found in vast variety and of enormous size. The Asterolepis was twenty feet in length, and furnished with strong and trenchant teeth in two rows. Their contemporaries were furnished with armour plates to resist their attacks, just as armour-plated ships are prepared now to resist powerful shot and shell. The Pterichthys had a head three feet long, with extraordinary strong and massive bones in the upper jaw. In addition to strong teeth there were in front two huge sabre-shaped tusks or incisors, each nearly a

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foot long; and corresponding to these in the massive lower jaw were two closely joined conical tusks fitting between these of the upper jaw. No other fish present so frightful an apparatus for destruction. Its body was probably thirty feet in length, and capable of rapid motion through the water. Many of the most ancient and curious fishes of this period are covered with broad plates like the Pteraspis. The Cephalaspis, or buckler-head, is distinguished by its broad flat head, rounded in front and prolonged at the sides into two great spines.

The Devonian era was succeeded by the Carboniferous, in which reptiles appear, though it was especially the era of the vegetable kingdom, marked by great forests and enormous development of flora. It had also gigantic, crocodile-like animals, provided with powerful jaws and teeth, lizard-like creatures, and huge snakes. Some of the reptiles of this time were ten feet in length, with bodies generally lizard-like in form, with stout limbs and a flattened tail useful in swimming. Their heads were massive, with large teeth, strengthened by insertion and convolution of plates of enamel. The fore limbs were larger than the hind limbs, to enable them to raise themselves out of the water. The body was strengthened by bony plates, and in general aspect and mode of life they were not unlike modern alligators. They were the harbingers of the great development of reptile life in the succeeding geological period. They were really batrachians, or gigantic frogs in type, judged by their skeletons, though in appearance more like lizards.

At the close of this reign of fishes, or Palæozoic time, great disturbances once more broke up the crust of the earth. The rich fauna of the carboniferous seas died out in the Permian period, and was not renewed. The rocks of the Mesozoic period which succeeded are divided into three groups: the Triassic, Jurassic, and Cretaceous. The age of reptiles, the most wonderful of all the geologic ages, lasted

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during the two former of these epochs. Monstrous and marvellous animal existences appeared on the earth. The birds were bat-like monsters which would dwarf our ostriches; the Saurians or lizard-like creatures were gigantic and terrible. The Iguanodon stood twenty feet or more in height, with enormous legs like those of an ostrich, but of elephantine thickness. It was a biped, but had a huge tail, on which it supported itself, as on a third limb, with a diminutive head of mild aspect on the small and slender upper part of its body. It lived on the leaves and fruit of trees, which it could easily pick with its small forelimbs as it walked through the woods. The Megalosaurus was an equally gigantic biped, but much more agile. It could run with great swiftness, or advance by huge leaps, while its hands and feet were armed with strong curved claws, and its mouth with sharp-edged and pointed teeth. It is one of a set of biped, bird-like lizards, and the most terrible and formidable of rapacious animals that the earth has ever seen.

Still more remarkable was the Ceteosaurus, whose "thigh-bone is sixty four inches long, and thick in proportion. From this and other fragments of the skeleton it is concluded that this monster must have stood ten feet high when on all fours, and that its length could not have been less than fifty feet, and perhaps much more. From a single tooth which has been found, it seems to have been herbivorous, a sort of reptilian Hippopotamus, living on the rich herbage by the sides of streams, and occasionally taking to the water, where the strokes of its powerful tail would enable it to move more rapidly than on the land."

The air was as full of wonders as the earth during these strange Mesozoic times. There were Pterodactyles, or huge reptile bats; some of them were larger than the largest modern birds of prey. Specimens in the Cambridge Museum indicate that one species measured twenty feet in the expanse of its wings, and fragments of much larger ones are said to exist.

These animals, judging from their brains, were intelligent.

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Their jaws were sheathed with a horny covering like a snout, which was probably used for cleaning the wing membrane. The lizards of this strange time had wings like bats, and the birds had tails and hands like lizards. Almost every animal, in fact, has more or less of reptilian features, and yet there were some few small and inconspicuous representatives of a higher and better state of things. Some small mammals, which never seem to have thriven, existed in this period. The Microlestes and the Dromatheriums are the beginning of the great class of mammalia destined to culminate in the Elephants and their contemporaries of the Tertiary period. "Who that saw them trodden under foot by the reptile aristocracy of the Mesozoic could have divined their destiny? But, notwithstanding the struggle for existence, the weakest does not always "go to the wall." The weak things of this world are often chosen to confound those that are mighty; and the little quadrupeds of the Mesozoic are an allegory. They may typify the true, the good, and the hopeful, mildly and humbly asserting themselves in the world that now is in the presence of the dragon monsters of pride and violence, which in the days to come they will overthrow. Physically the Mesozoic has passed away, but still exists morally in an age of evil reptiles, whose end is as certain as that of the great Dinosaurs of the old world."[1] "The Mesozoic mammals were a mute prophecy of a better time, a protest that the Age of Reptiles was an imperfect age, and that better things were in store for the world."

The waters of this period present as remarkable features as the land and the atmosphere. They, too, team with reptiles, or reptile-like creatures. Fifty or sixty species of aquatic reptiles besides turtles have been found, and some of the species appear to have been very abundant; so that the waters swarmed with strange, often hideous and always grotesque,

[1] "Story of the Earth and Man," p. 209.

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creatures. Among these were Ichthyosaurs twenty five feet long, and Plesiosaurs at least eighteen feet in length.

One of the relatives of the Plesiosaurus had a head eight feet in length, armed with conical teeth a foot long, the neck was not only long, but massive and powerful, and the whole animal, perhaps forty feet long, moved through the water with prodigious speed.

Besides these monsters, the Triassic and Jurassic rocks abound with fossil Turtles of enormous size, Crocodiles and Fishes, together with Nautili and Ammonites of gigantic development, some three feet in diameter. There were Cuttle fish of formidable proportions, while the Crabs and Lobsters and Shrimps were much like those of our own time.

The monsters of the Tertiary age were of quite another character. Their skeletons are found entombed in the London and Paris clay, and other deposits which lie over the Chalk. The strata in Europe and Asia at this period were elevated in some places to great heights. The Swiss Alps and the Himalaya Mountains were thrown up after the great depression of the Chalk. On these new and elevated continents higher groups of animals than any the world had ever seen before began at once to prevail. No sooner was the Cretaceous sea dried up off the new land than Mammals of a gigantic size make their appearance.

"Of all the animals of the European Miocene, the most wonderful and unlike any modern beast is the Dinotherium, found in the Miocene of Epplesheim, in Germany, and described by Kaup. Some doubt rests on the form and affinities of the animal; but we may reasonably take it, as restored by its describer, and currently reproduced in popular books, to have been a quadruped of somewhat elephantine form. Some years ago, however, a huge haunch bone, supposed to belong to this creature, was discovered in the south of France; and from this it was inferred that the Dinothere may have been a marsupial or pouched animal, perhaps allied in form and habits to the Kangaroos. The skull is three feet four inches in length; and when provided with its soft parts, including a snout or trunk in front, it must have been at least five or six feet long. Such a head, if it belonged to a quadruped of ordinary proportions, must repre-

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sent an animal as large in proportion to our Elephant, as an Elephant to an Ox. But its size is not its most remarkable feature. It has two large tusks firmly implanted in strong bony sockets; but they are attached to the end of the lower jaw, and point downward at right angles to it, so that the lower jaw forms a sort of double pointed pickaxe of great size and strength. This might have been used as a weapon; or, if the creature was aquatic, as a grappling iron to hold by the bank, or by floating timber; but more probably it was a grubbing hoe for digging up roots, or loosening the bases of trees, which the animal might afterwards pull down, to devour them. However this may be, the creature laboured under the mechanical disadvantage of having to lift an immense weight in the process of mastication, and of being unable to bring its mouth to the ground, or to bite or grasp anything with the front of its jaws. To make up for this, it had muscles of enormous power on the sides of the head, attached to great projecting processes; and it had a thick but flexible proboscis, to place in its mouth the food grubbed up by its tusks. Taken altogether, the Dinothere is perhaps the most remarkable of mammals, fossil or recent; and if the rest of its frame were as extraordinary as its skull, we have probably as yet but a faint conception of its peculiarities. We may apply to it, with added force, the admiring ejaculation of Job, when he describes the strength of the Hippopotamus, 'He is the chief of the ways of God; He who made him gave him his sword.'"[1]

The Titanotherium, another monster found in America, was eighteen feet long and nine feet high, its jaws alone being five feet long. Gigantic Whales lived in the seas, the remains of one seventy feet in length having been found.

Now what is all this but *a parable and a prophecy?* A painful parable! A precious prophecy! May we not say as we review this strange Geologic story, "These things happened unto them for examples (types), and are written for our learning"? Can we not see in the past the reflection of the present?

What are these horrible monsters in earth, and air, and sea? These mighty beasts armed with cruel and tremendous weapons, and living by slaughter and destruction? Types of the heroes of history! The Nimrods and Nebuchadnezzars, the Xerxes and Alexanders, the Cæsars and Pompeys,

[1] "Story of the Earth and Man," p. 252.

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the Timours and Zenghis Khans, the Charlemagnes and Napoleons, that have dominated their fellows, and destroyed much people!

Men admire military heroes, and extol such men. Great world powers like Greece and Rome are glorious in their eyes. But God's thoughts are not our thoughts; He represents such in Scripture prophecy, as wild Beasts, "dreadful, and terrible, and strong exceedingly." And He called into existence such wild beasts, and allowed them to stalk the earth for ages, and to leave their remains as monuments for the study of mankind. There is nothing good or glorious in mere brute force, however great it may be! Beasts, no matter how colossal, or how beautiful, or how terrible, are but bestial after all! Stupid, ignorant, irrational, degraded in the scale of being, cruel, ferocious, destructive, injurious to others, recklessly selfish, indifferent to everything save the gratification of their own lusts, utterly incapable of knowing, loving, or servingGod —fit only to be taken and destroyed. What a picture of the world's rulers, and warriors, and heroes! And is the war and destruction, the suffering and death, such men inflict on humanity to last for ever? What says the geologic prophecy? It endorses the solemn statement of God, "I will overturn, overturn, overturn, until He come whose right it is, and I will give it (the crown) to Him."[1]

The dominion of the earth was wrested from race after race of monsters—huge Amphibians, huger Reptiles, held sway for ages, but Labyrinthodon and Dinosaur, Iguanodon and Megalosaur, Pterodactyle and Ceteosaur, Plesiosaur and Sea Serpents, and all their terrible congeners, were swallowed up in destruction when the old Seas became Continents, and the Continents sank to the bottom of the sea. The reign of monster beasts followed, but Mastodon and Dinotherium also passed away in their turn, and the dominion was given to

[1] Ezek. xxi. 27.

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him for whom it had been prepared—*Man*, who should rule not merely by might, but by right; not by force alone, but by reason.

So in history. We have had the age of monsters; we await the age of man, the Son of Man!

"Four great Beasts came up from the sea, diverse one from another"—the first like a Lion, the second like a Bear, the third like a Leopard, the fourth as terrible as the Saurians of the Mesozoic age, a Beast that was "dreadful and terrible and strong exceedingly," that "devoured, and brake in pieces, and stamped the residue with his feet," a Beast to whom the Dragon gave his power, and his seat, and great authority; a Beast that "made war with the saints, and overcame them." But his dominion, like the rest, was taken away; the SON OF MAN came, "and there was given Him dominion, and glory, and a kingdom, that all people, nations, and languages should serve HIM. His dominion is an everlasting dominion, which shall not pass away, and His kingdom that which shall not be destroyed."[1]

X. *The unsuitability of man as a corrupt and mortal being to be the goal of the divinely directed movement of Geologic or Terrestrial advance.*

The testimony of history as to the moral character of man can neither be doubted nor denied. To the question, Is the nature of man good or evil? history has but one reply. In the very earliest age of which we have any record "the wickedness of man had become great upon the earth"; "every imagination of the thought of his heart was only evil continually"; "the earth was corrupt, for all flesh had corrupted their way upon earth." This is the brief but pregnant description of the state of things that called for the flood. "The earth was filled with violence." Wars and murders, outrages and enormities were rife. Wickedness was universal.

[1] Dan. vii. 13, 14.

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So after the flood heroes and despots like Nimrod arose among men, and in the steps of this grandson of Ham have followed a fierce and fatal train of Pharaohs, Nebuchadnezzars, Alexanders, Cæsars, Attilas, Alarics, Jenghis Kans, Tamerlanes, and Napoleons, who have created devastations of appalling extent, built up thrones on the ruins of slaughtered nations, and filled the earth with the groans of tortured and dying myriads, and with the tears of bereaved parents, wives, and children. History indeed is little else than one long and mournful register of man's avarice, ambition, folly, and cruelty, and of the deeds of blood to which these passions have led. War has in all ages and countries been the favourite pursuit of men, and in this one word *war* is included "everything that is base and execrable in moral conduct, everything that is subversive of the principle of benevolence, everything that is destructive of human enjoyment and welfare, everything that is oppressive, cruel, and unjust, and everything that is dreadful and appalling to mankind."

Dr. Thomas Dick, the astronomer, whose work on the Philosophy of Religion is our authority for most of the following figures, calculated that the total number of human beings who have been slaughtered in war amounts to not less than *fourteen thousand millions*, or ten times the present population of the globe.

In Haydn's "Dictionary of Dates," article "War," there is a computation that up to the present time 6,860,000,000, or nearly seven thousand millions, have perished on the field of battle, or about five times the present population of the globe. Whichever computation we accept, the number is one which overwhelms the mind by its magnitude.

In 101 B.C., in the battle between Marius, the Roman general, and the Teutones in Transalpine Gaul, 200,000 so-called barbarians were slaughtered. The inhabitants of the country "made fences of their bones." The year after Marius slaughtered 140,000 Cimbri. In 105 B.C., in one engagement with the Cimbri and Teutones, the Romans lost 80,000 men. In the battle of Cannæ, 40,000 Romans were left dead on the field, and 6,000 Carthaginians. In the battle of Issus, between Alexander and Darius, 110,000 were slain; in the battle of Arbela, two

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years afterwards, 300,000. In the battle between Pyrrhus and the Romans, 25,000; in that between Scipio and Asdrubal, 40,000; and in that between Suetonius and Boadicea, 80,000. In 170 B.C., 40,000 Jews were slaughtered in Jerusalem by Antiochus Epiphanes. In the siege of Jerusalem by Titus, according to Josephus, 1,100,000 Jews perished. In the war with the Romans, sixty-five years later, on the occasion of the rebellion led by Barcochab, 580,000 Jews fell by the sword, according to Dion Cassius. At Cyrene the Jews slew 220,000 Greeks and Romans; and in Egypt and Cyprus, during the reign of Trajan, 240,000. When Julius Cæsar invaded Germany, 400,000 Usipetes are said to have perished in one battle, a fraction of those slain in the various wars of this mighty conqueror. The numbers slain by Attila the Hun are appalling; in the battle which resulted in his defeat at Chalons there perished 300,000. When the Saracens invaded Syria in 631, they slaughtered 60,000; when the Goths took Milan, they put to death 300,000. In 734 the Saracens slaughtered in Spain 370,000. In the battle of Fontenay 100,000 perished; in that of Yermock, 150,000; in that of Tours, between Martel and the Mohammedans, 350,000. In the battle of Muret, in 1213, 32,000; in that of Cressy, 50,000; in that of Agincourt, 20,000; in that of Towton, in 1461, 37,000; in that of Lepanto, in 1571, 25,000; at the siege of Vienna in 1683, 70,000; at the siege of Acre, 300,000. Coming down to modern times, in the battle of Leipsic 330,000 allies fought against 260,000 French; the former lost in killed and wounded 48,000 and the latter 45,000. In the battle of Moscow the Russians had 130,000 and the French 134,000, the former lost 58,000 and the latter 50,000. At Wagram the losses were 42,000; at Austerlitz, 31,000; at Waterloo, 56,000. In the comparatively recent Franco-German war of 1870, the French lost 350,000, the Germans 17,570 killed in battle, and 10,707 afterwards died of their wounds. Yet all this represents but a small part of those who have perished in war. The army which followed Xerxes into Greece numbered from three to five millions. Nearly the whole of this immense army was routed and destroyed. In the twenty years' war of Justinian with the Goths, the loss of the latter amounted to 15,000,000. During the last twenty-two years of his reign, Jenghiz-Khan butchered 14,470,000 persons. The plan on which he waged his wars was that of total extermination. Tamerlane, one of his successors, was only little less inhuman than this cruel despot.

We have not space to attempt to pourtray the character of man as revealed by the records of history. Nor is it needful that we should enlarge upon this painful subject. To judge of the moral nature of man as it exists even under the restraining and elevating influences of law, civilization and

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religion, we have but to read the daily papers. The accounts of murders, infanticides, suicides, assaults, robberies, swindles, divorces form a large part of every-day news. The angry discussions of politics, the bitter and reckless invectives of party strife, the miserable "theatrical entertainments," showing that man is driven to look for pleasure not in the actual but in the unreal world, which, however, he endeavours to make as like the real world with all its vices as he possibly can; the obituary with its daily record of death, the advertisement sheets with their evidence of eager, selfish competition, all present a picture of ordinary human character which must be repulsive to every virtuous mind. Was *this* the being for whom, through almost interminable ages, the world had been preparing? We look eagerly to behold some temple of surpassing glory, and lo! a blackened ruin!

"If man," says Pascal, "knows not himself to be full of pride, ambition, concupiscence, weakness, misery, and injustice, he is wretchedly blind." "Man, in no part of his conduct, follows that reason which constitutes his true existence." "Intestine war is carried on between his reason and his passions . . . if he possessed only reason without passions, or passion without reason . . . but possessing both . . . he is at variance with himself." "In proportion as he is enlightened he sees more of his greatness and misery." "He knows not to what rank in creation to assign himself." "O the degradation of man! to place himself below, yea, to adore the very beasts that perish"! "If he boast, I will abase him: if he abase himself, I will exalt him; thus will I meet him with perpetual contradiction till he shall see that he is an incomprehensible being—a monster in creation!"

Being what he is, how can man be the goal of Nature? If Nature is the work of God, it is the offspring of good. Can evil be the goal of good? Can good aim at evil, and make evil its end? Impossible! Man cannot, then, be Nature's

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end. A nobler type of being must be destined to fill that position, as much higher than sinful man as he is higher than the beasts that perish. All the prolonged progress of Telluric history points to the advent of such a being. The whole scheme is the promise of His coming, and the preparation for it. Creation travails in birth, pained to be delivered of a nobler, purer, happier race, which shall rule the world in righteousness, as the true image and representative of the divine Creator and Controller of all things.

XI. *The appearance in History of a new and nobler type of man, realizing the ideal of perfect likeness to the Divine Image, and fitness for the goal of the Geologic, or Telluric, progress.*

A new era broke on mankind with the appearing of Jesus Christ. His advent was the rising of the sun in the moral firmament. Up to His appearing stretched only the dark and dismal ages of probation demonstrating the utter ruin of the race. In every land, in every clime, man, whether civilised or savage, had evinced no other than sinful and self-destructive tendencies. The mute prophecy of the physical monsters of the Mesozoic ages had been fulfilled in the moral monsters which in their turn had ruthlessly trodden down and destroyed the earth. It was time to sweep these also away, and to introduce a higher order of things by bringing into the world a different and morally superior race.

Nothing preceded the appearance of Christ worthy in any sense to be compared with it, save the advent of man himself in his first unfallen state. For, just as man differed from the lower animals whose creation preceded his own, not merely in degree but in kind, so did Jesus Christ differ from the Natural or Adamic type of man. He was not merely greater, wiser, and holier than all of Adam's race, but He was a being of another nature. He differed from them in *kind*, not merely in *degree*. And He became the Head and

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Founder of a new race of human beings destined to replace the old.

The life and death of Jesus Christ of Nazareth are *strictly historical events*; they occurred in times recent compared to those in which the Vedas were written; there is no mist of antiquity, or trace of legend or myth about the Gospels. "These things were not done in a corner," or kept in remembrance by vague tradition. They took place in the noonday of authentic history, and were recorded by artless, honest, and intelligent eye-witnesses at the time of their occurrence, or immediately after. They were published as history in the lifetime of those who were acquainted with the facts, and who would gladly have denounced them as fictitious, had it been possible. Whatever views may be entertained as to the exact date of the first publication of the Gospels, even sceptics are compelled to admit the early date of Paul's principal Epistles, in which the leading facts of Christ's history, and of the founding of the Christian Church, are recorded.

The advent of Christ has ploughed its mark in the history of the world. Nothing can erase its effects; nothing can compare with them. It is an indisputable fact that, "Of all the influences that have been exerted in this earth, that of Jesus has been the most potent. Enumerate all the great men who have ever existed, whether kings, conquerors, statesmen, patriots, poets, philosophers, or men of science; and their influence for good will be found to have been as nothing compared with that which has been exerted by Jesus Christ."[1] His advent introduced into the world the knowledge and recognition of the universal Fatherhood of God, and brotherhood of man; and established a new code of practical morality based on these truths. It lifted religion from mere ritualism and externalism to the level of spiritual worship

[1] Rowe. "Bampton Lectures." 1877, p. 93.

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and Divine communion. It raised woman from degradation; liberated the slave from cruel bondage; abolished the amphitheatre, and put an end to gladiatorial conflicts. It overthrew the Judaism of the Pharisees, and the heathenism of the Cæsars. It introduced among men liberty, mercy, and charity, and saved the world from the danger in which it lay at the beginning of our era, of perishing in its own corruptions.

We will now consider the character and claims of Christ as set forth in the New Testament Scriptures in relation to His position as "The Second Man," whose person, race, and kingdom form the goal of the Geologic, or Telluric, progress.

I. The Second Man.

"Jesus, there is no dearer name than Thine,
Which Time hath blazoned on his mighty scroll;
No wreaths nor garlands ever did entwine
So fair a Temple of so vast a soul."

When, after a review of the invariable declensions of mankind, and of the series of crimes, cruelties, frauds, and follies of which his history consists, we come to the advent of Jesus Christ and the introduction of Christianity, the relief to the moral sense is immense and unspeakable! It is like that experienced by the traveller who has been slowly and painfully cutting his way through some gloomy malarial forest-region in Central Africa. No ray of light has fallen on his path; the towering trees spread their dense impenetrable foliage over his head, excluding both sun and air; treacherous swamps are beneath his feet, strong creepers entangle his limbs, poisonous snakes glide amongst the grass, wild beasts roam on every hand; horrible man-like apes spring from tree to tree, and huge gorillas are encountered from time to time; no path is to be found amid the gloom, nor any trace of a way of escape. The stifling exhalations of decay and corrup-

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tion make it well-nigh impossible to breathe, and the oppressed, exhausted, bewildered traveller is almost in despair. But suddenly he sees a gleam of light, and struggling towards it emerges on a fair and fruitful plain. The forest has ended. The sunshine floods both himself and his future path. "The darkness is past, and the true light now shineth."

As regards the moral and spiritual progress of the human race, such are the feelings produced when, after considering the dark and devious course of ancient history we turn our gaze to the character of the man Christ Jesus, and the revolution His appearance has wrought in the earth.

Was He one of us? Was He a mere man? Was He simply an extraordinary descendant of the first Adam? Or was He what we have asserted—*a new man, the first of a new and higher order of beings in whom God and man are to be for ever united?*

In seeking a reply, we must, of course, turn in the first place to the testimony of the books of the New Testament, since they alone describe the life of Jesus of Nazareth; but we will regard them for the present not as inspired documents, but simply as ordinary historical records.

The four Gospels describe a certain character, which must needs be an historical one, for otherwise its conception by such men as the evangelists, in such an age as the first century, would itself be a miracle as great or greater than the existence of the character described.[1]

If the character of Christ were invented, then, as Rousseau says, "the inventor would be a more astonishing character than the hero." "Whatever may be taken away by rational criticism," says John Stuart Mill, "the portrait of Christ presented to us in the Gospels is still left, a unique figure not more unlike all his predecessors than all his followers, even

[1] "The Gospels do not account for Christ, but the reality and grandeur of Christ are the sole explanation of the possibility of the Gospels."—*Farrar.*

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those who had the direct benefit of His personal teaching. It is no use to say that Christ, as exhibited in the Gospels, is not historical, and that we know not how much of what is admirable has been superadded by the traditions of His followers. . . . Who among His disciples, or among their proselytes, was capable of inventing the sayings ascribed to Jesus, or of imagining the life and character revealed in the Gospels?" We turn then to these early unique records, and to the Apostolic Epistles by which they are illustrated and confirmed, in order to ascertain the leading features in

The Life and Character of Christ.

It has been well said that "the Gospels nowhere describe Christ's character. They nowhere tell us that He was dignified under insult, calm before opposition, submissive under suffering, indignant at the sight of hypocrisy, sympathetic with sorrow. These characteristics are manifested by Him, but never affirmed of Him. They appear only in His words and acts. The writers of the first three Gospels make no attempt at delineation; they are apparently quite unconscious that they are giving to the world a portrait; they make Christ speak and act before us, and we form our judgment of His character independently, as if we had seen and heard Him ourselves. Whatever feelings may spring from reading the Gospels, they are never the result of sympathy with the writers. One could not be sure, judging from their style, that the synoptic evangelists were not indifferent spectators of what they recorded. There is no writing for effect, no exhibition of their own opinions, but an unadorned narrative which simply recounts the words and works of Christ."[1]

The Gospel narrative is like a clear pane of glass through which we see a marvellous prospect without being conscious of the existence of the intervening medium transmitting the light. It is no "storied window," staining with artificial

[1] "The New Era," Josiah Strong, D.D., p. 105.

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hues the light which it transmits. The narration is of the simplest, clearest, most uncoloured character. It permits us to stand on the hillsides of Galilee, or by the margin of Gennesaret, just where the first disciples stood, and to see the things they saw, just as they saw them.

And as we gaze what do we behold? We see a character wholly unique, symmetric, generic, perfect; one which soars above all other characters without an effort; which attains greatness without seeking it; which rises as it stoops; a moral miracle; a character combining in a supernatural degree the morally beautiful with the morally sublime. Moral beauty —yes, without compare! Love in its essence, light in its effulgence, goodness blent with truth, wisdom with kindness, severity with tenderness, the all-searching glance with the all-sympathising tear, the unconquerable antagonisms of holiness with the irresistible attractions of grace; and moral sublimity without measure; the highest aim, the largest purpose, an outlook which dominates the ages, a work which throws all human achievements into the shade,—the founding on truth and love a kingdom which should replace all others and endure for ever, the redemption and regeneration of the world!

Higher than the Jew, higher than the Greek, higher than the Roman was Jesus Christ. No Gamaliel, no Socrates, no Cæsar was He. As the heaven is higher than the earth, so were His thoughts and ways higher than theirs. He was not only not of Jerusalem, not of Athens, not of Rome, He was "not of the world." And yet none ever lived who was so for the world. Unlike it, against it, for it, He more than any other knew the world, sought it, suited it. Fundamentally separate from its spirit, He became the fundamental bond of its unity. The greatness of Christ was not national, nor even human. His horizon was not bounded by the hills of Palestine, or the shores of Greece or Italy, for his heart was like the heaven which holds the world in the hollow of its azure

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hand, and covers it on every side; that stainless sun-lit sphere which, of no land, and limited by no barrier, belongs to all.

Among the various features in the character of Christ calculated to arrest our thoughts, none are more salient than His *sinlessness*, and His claim to be *supernatural and Divine*. The combination of these two features in a single character is absolutely without a parallel.

(1) *The Sinlessness of Christ.*

In the character and life of Christ, as described in the Gospels, there is the singular feature of entire freedom from sin. This fact appears alike in His words and His deeds; in what He did and said, and in what He omitted to do and say. He spent much time in both private and public prayer, and delighted in communion with God; but His prayers and supplications, as far as recorded, are wholly destitute of one element which marks all human prayer, and characterizes all human piety. With Him there was no confession of sin, shortcoming, or failure; no regret for things done that ought not to have been done, or for things left undone that ought to have been done. This distinction between the prayers of Christ and those of mere men is essential. In every age, and under all forms of religion, whether true or false, repentance is the foundation of religious feeling in man. It is completely absent in the character of Christ. Not once in the course of His life does He show the faintest glimpse of regret for anything He had either done or omitted. On the contrary, instead of any inward sense of unworthiness, He boldly challenges His accusers with the question, "Which of you convicteth me of sin?" Lifting up His eyes to heaven at the close of His life, and without a single qualification, He says, "Father, I have glorified Thee on earth. I have finished the work which Thou gavest Me to do." He declares He did

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always the will of His Father in heaven. Such perfect satisfaction with His own conduct would indicate blindness, delusion and pride in any ordinary man. An unrepentant human being is either a careless sinner, or a self-righteous Pharisee. "If we say we have no sin, we deceive ourselves, and the truth is not in us," and only "if we confess our sins" can we hope for forgiveness and favour. Jesus taught His disciples to say, "Forgive us our trespasses," but He never said so Himself! His piety was an unrepentant, and hence a superhuman piety. God rejects, in the case of mere man, the piety that springs not from a broken heart and a contrite spirit. Christ Himself presented the true way of a sinner's return to God in His parable of the Prodigal Son. But such was not the way in which He approached His Father. High as was His own standard of human holiness, He felt that He fully came up to it.

"The silence of Jesus respecting any sense of personal unworthiness has been accounted for by the unrivalled closeness of His life-long communion with God. Is it then that the holiest souls are least alive to personal sin? Do they, whose life of thought is little else than the breath of a perpetual prayer, and who dwell continuously in the presence chamber of the King of kings, profess themselves insensible to that taint of sin from which none are altogether free? Is this the lesson that we learn from the language of the best servants of God? The very reverse! Those who have lived nearest to God, and have known most about Him, have been foremost to acknowledge that the burden of remaining imperfection in themselves is truly intolerable. Their eager protestations have often seemed to the world to be either the exaggerations of fanaticism, or else the proof of more than ordinary wickedness: for blemishes which might have passed unobserved in a spiritual twilight are lit up with clearness by those searching, scorching rays of moral truth that stream from the bright sanctuary of God upon the soul that beholds it. In that Presence the holiest of creatures must own with the Psalmist, "Thou hast set our misdeeds before Thee, and our secret sins in the light of Thy countenance." Such self-accusing, broken-hearted confessions of sin have been the utterances of men the most conspicuous in Christendom for holiness of life. And no true son of God ever supposed that by a constant spiritual sight of God the soul would lose its keen sense of personal sinfulness. No man can presume that this sense of sinfulness, as distinct

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from the sense of unpardoned guilt, would be banished by close communion with God, unless his moral standard was low, and his creed imperfect. The presumption is utterly inconsistent with a true sight of Him whose sinless beauty casts a shadow of failure upon all that is not Himself, and who charges His very angels with moral folly. Yet Jesus Christ never once confesses sin. . . . This consciousness of an absolute sinlessness in such a soul as that of Jesus Christ, points to a moral elevation unknown to our actual human experience. It is at the very least suggestive of a relation to the perfect moral Being altogether unique in human history."

Further, the gospel story shows that the sinlessness of which Christ was conscious, and which He consistently claimed, was fully acknowledged by others. God Himself bore witness to it, as did angels, apostles and saints, friends, enemies, and even demons. All agreed in pronouncing Him to be what no other human being ever was—faultless; morally perfect.

Before His birth the angel announced to His virgin mother that her promised child should be holy. "That holy thing that shall be born of thee." His pure and beautiful childhood is sketched for us in the Gospels with only two or three masterly strokes, but they cause the effect of a phenomenon unique in history, a lovely celestial childhood, an unspotted and graciously attractive youth. The child Jesus won the love of all who knew Him—He grew in favour with God and man. Heaven and earth alike delighted in Him. As an exquisite tropical flower, unfolding in a hot-house its unknown exotic beauty, is watched with profound interest and admiration, so must Joseph and Mary have watched, and wondered at, the development of the moral character and mental abilities of the mysterious child committed to their care. The only incident of His boyhood on record—the visit to the Temple at twelve years old—is in perfect harmony with the character of a holy child. He yields unhesitatingly to His mother's desire, while yet feeling His higher relationships and responsibilities, and eager to learn more of the law of the

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Lord. The Rabbis of the Temple see in His conduct or in His questions nothing unsuitable or unchildlike, though they are amazed at His intelligence and wisdom. The young child was no unnatural monstrosity of premature mental development; His wisdom was one of the natural fruits of His holy nature, and of His pious training. His mother (as her own beautiful psalm of praise shows) was familiar with the Old Testament; He had doubtless learned to read the sacred writings at her knee, and had lovingly studied them on the hillsides of Galilee. His after use of the Scriptures proved how well versed he was in them. "Have ye not read?" was His frequent challenge to the Rabbis; and "It is written" His reply to the tempter.

Docile, obedient, intelligent, pious, blameless—Jesus was in His youth just what a perfect human being should be. Affection would love to know more of the unfoldings of His character as youth merged into manhood, but the existing documents pass over those years in silence.

When next we see Him it is at His Baptism, when thirty years of age. The great Baptist, recognising His dignity and purity, objected that the sinless should be baptized by the sinful, or indeed baptized at all with the "baptism of repentance." Christ admits that there was a certain unsuitability, but urges that for other reasons baptism on His part would at that moment be a fulfilling of all righteousness, though He had nothing of which to repent. The voice from heaven, which immediately succeeded His baptism, attested that in Him His Father was well pleased. Satan, whose wiles He resisted in the temptation, afterwards confessed through the legion which indwelt the Gadarene, "We know Thee who Thou art, the holy one of God." All Christ's subsequent teachings were opposed to sin; all His precepts inculcated holiness of heart and life; His stern rebukes and withering denunciations were directed against hypocrisy and all manner of pride and falsehood; His whole life was one long protest

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against sin in every form. The hatred He incurred from sinners was because He exposed and denounced their iniquities; He rebuked sin in His own disciples when they fell into it, reproving their pride, ambition, unbelief, and slowness of heart and apprehension. He predicted awful judgments on sinners. He claimed to be absolutely sinless Himself, challenging even His enemies by asking them, "Which of you convinceth Me of sin?" The ruling principle of His life was to do the will of God: "Whatsoever things the Father doeth, these also doeth the Son likewise." "My meat is to do the will of Him that sent me, and to finish His work." He was obedient—even unto death; sacrificed His human will entirely to the will of God. Pilate could find no fault in Jesus, and Pilate's wife calls Him "that just person." Judas condemns himself for having betrayed "innocent blood"; and the dying malefactor expressed the public opinion of Jerusalem when he said, "This man hath done nothing amiss." While He loved sinners, and taught the love of God to such, and had only words of mercy and hope for the penitent, Christ was so stern as to sin, that His very presence seemed to detect and condemn it. Peter exclaimed, on recognising Him, "Depart from me, for I am a sinful man, O Lord!" The Apostles, who knew Him best and most intimately, and who would have seen any moral flaw, had any such existed, with one accord testify to His absolute purity. They style Him, "the righteous one," "the holy one and the just," "that just one." They speak of His suffering, "the just for the unjust," of His being tempted as we are, "yet without sin"; they assert that "He did no sin, neither was guile found in His mouth"; that He was a "Lamb without blemish and without spot"; that He is a great High Priest who needeth not, as other priests, to offer up sacrifice for His own sins, but who, precisely because in Him was no sin, was all the more able to take away our sin.

The sinlessness of Christ is perhaps most strongly evinced,

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however, by the intense and consuming hatred of sin which He revealed in His purpose to put it away for ever by the sacrifice of Himself. He "resisted unto blood," striving against it. The religion He has established in the world is marked by opposition to every form of sin, and in spite of all its corruptions, has actually produced the highest morality the world has ever known.

In a word, of the Jesus of the Gospels we can only say with one of His biographers, "in Him was no sin"; and as sinful men, only acquainted with sinners, could not possibly have imagined or invented such a character, we are driven to conclude that such a one actually existed—that a faultless, perfect man, wholly free from the remotest taint or shadow of moral evil, appeared on earth at the beginning of the Christian era.

(2) *Christ's Claim to be Divine.*

The sinless Jesus of Nazareth, the Light of the World as He proved Himself to be, who came to bear witness to the truth, plainly asserted and uniformly assumed His own Divinity. It shines through His every utterance as an interior light gleams through every opening and crevice of a building, whether He speaks in metaphor or in parable, in sermon or in prayer, whether He was putting forth the finger of God in miracle-working power, or whether He was suffering and dying; amid the throng of His enemies or the circle of His friends; in the temple, on the sea, by the wayside, in the synagogues, on the mountain, on the Cross, after the Resurrection; from first to last the Lord Jesus invariably feels and speaks *as a Divine Being.*

Unlike the ancient prophets and His own predecessor, John the Baptist, unlike His apostles and His witnesses ever since, He proclaimed His own supreme dignity and His importance to the welfare of the human race. From an analysis of the Gospels we may infer that Christ's "whole

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message to man was but the interpretation of Himself." According to His clear and emphatic declaration Christ was

"greater than Jonah, than Solomon, than Abraham. He was greater even than the most sacred institutions—the Temple, the Sabbath, the Law and the Prophets—which He at once superseded and fulfilled. And He was not only great as regards the past, but necessary as regards the future—the one Being needful for all men everywhere, and needful not simply as an official, but as a person. His very being is a condition of man's chief good. It is not only as a teacher of truth, as a preacher of the kingdom, or as a realized ideal of righteousness that He is necessary; the necessity is so personal that it is by His relation to men and men's to Him that they are to be judged, saved or lost. If men refuse to hear Him or His, it shall be more tolerable in the day of judgment for Sodom and Gomorrah than for them. To receive or reject Him is to receive or reject God. To be ashamed of Him or His words before men is to bear no part or lot in the kingdom of God. Men who would share His life must bear His cross; for the sake of Him and His Gospel all must be sacrificed, and then all will be gained. The service must not be outer, ceremonial, vicarious; must be inner, real, personal, or it is worthless. He is the living bond of unity, necessary to fellowship among men, and worship of God. If any one dares to try issues with Him, he will be not simply broken, but ground to powder; but blessed are they who are not offended in Him; and as the necessary He is the solitary; no one can take His place or do His work; He stands alone. As the Son He only knoweth the Father, and all knowledge is of His giving. No one cometh unto the Father but by Him. And as necessary and unique He is universal—no local or provincial person, but One who invites all, and promises rest to the all He invites. He is sufficient for every human need, and becomes through His death only the more mighty. By being lifted up He is to draw all men unto Himself." [1]

In such claims as these—and they are thickly scattered throughout all His teachings—Christ evidently ascribes to Himself a nature and position truly superhuman and Divine! How manifest, for example, is this in His prophecies with reference to the final judgment of the world, in which He describes all nations as gathered before Him; obedient angels, clustered round His glorious throne; the hearts, the histories, and the lives of all of the countless millions of mankind naked and open before Him, and the eternal destinies of all

[1] "Christ in Modern Theology." Fairbairn, p. 369.

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in His hands! What an inconceivable position for finite fallible man! The very thought of it, as resting on ourselves, is calculated to crush us to the earth. But Christ represents Himself as calmly competent to the unequalled task of justly discerning the moral condition of each unit of the mighty throng; as able, not only accurately to discern, but actually to divide, between the morally good and the morally evil, the class destined to inherit the long-prepared kingdom and the bliss of life eternal, and the class destined to "everlasting punishment." And the sublimest assumption of all in this vivid picture of the final scheme, is that the sentence is represented as depending on the way in which He Himself had been regarded and treated by mankind! Does not the mind recoil from the conception of any mere man—and especially of any good man—venturing to assume for himself such a position and such a task as this?—a task as much beyond the power of any created intelligence as the creation or the government of the universe!

Now putting together the clear evidence which we have of *the sinless perfection of Jesus Christ*, with these His open and unmistakable *claims to be Divine*—what is the conclusion to which we are driven?

That His claims must be well founded and true, for reverence forbids one even to express in words, what He must have been if they were not true! Let us ask ourselves what we should be—any one of us—even the greatest saint, or the most inspired prophet, if *we* made such claims? Could any moral virtue remain in the soul of a man who, knowing himself to be nothing *but* a man, could pretend to such dignities, powers and rights as were claimed by Christ?

Could a truthful man speak a thousand falsehoods and live a life which was one long lie? Could a benevolent man mislead on matters of high and eternal importance, those who, in their simplicity, looked to him for light and salvation?

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Could a loving, unselfish heart press on others groundless claims to obedience and devotion, or seek honour and confidence to which it had consciously no claim? Could a reverent and religious man arrogate to himself Divine prerogatives, and while knowing and feeling his own mere creaturehood, assert, directly and indirectly, his Deity? Could a lowly, humble, right-minded man pretend to such dignities as those of Israel's Messiah, the world's Redeemer, the Judge of all mankind? Impossible! The *man* that could do all this would, with one consent, and most justly, be considered either sinful or insane—the former, if he did it with cool deliberation—the latter, if under the power of delusion.

Can we imagine a Moses, a Paul, an Augustine, or any other good man that ever lived, making such pretensions? We feel instinctively that the thing is impossible. There is no escape from the conclusion that since Christ was, as all history attests, sinless, and especially the very incarnation of love and truth, He must have been, as He said He was, The Son of God, The Messiah of Israel, The Saviour of the world.

And with this conclusion harmonise the historical accounts in the New Testament of the Miracles, the Prophecies, the Transfiguration, the Resurrection, the Ascension, and the subsequent appearances in His glory of our Lord Jesus Christ. With this conclusion further agree all the Messianic promises, and prophecies, and prefigurations, and anticipations in the Old Testament Scriptures. And Christian history and experience seal this conclusion with their confirmatory evidence.

Now it should be noted that the express doctrine of the New Testament is that Christ is "the Second Man," "the last Adam," the head of a new, a regenerated humanity. While the Old Testament begins with the first Adam, the New Testament begins with the Second. In the former we see Adam as the image of God exalted to dominion over this

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lower world; in the latter we see Christ as "the express image of His Person," exalted to the sovereignty of all worlds. Sin and death have entered by the one; righteousness and life have come by the other. The first was "of the earth, earthy"; the second is, "The Lord from heaven"; the first was "a living soul," the second is "a quickening Spirit." In assigning to Christ this position the volume of Revelation sets Him before us as the Term of the Telluric progress. And if He was the goal and end of creation, He must have been also its beginning, for "in the execution of a plan that which is last in realisation is the first in the thought of the one who executes the purpose. When in the construction of a drama, a certain conclusion is foreseen, everything is adapted to the outcome from the very first: a final effect is proposed; and therefore we may say the final thing is the first thing in the drama. When we construct complicated machinery for a given purpose, the purpose is the first thing in the thought, though the last thing in the execution. Christ, therefore, while above humanity, is in the strict sense the only true Man, the Archetype of human nature, the pattern after whose image and likeness the human race was fashioned. When God said, 'Let us make man,' His thought was pointing not to man at his beginning, but to man at his climax." [1]

II. The New Race.

"If any man be in Christ, he is a new creature; old things are passed away; behold, all things are become new."

Not only has a new man appeared upon the scene, but a new race; a spiritual race, as opposed to the natural; a people possessing the Spirit of Jesus Christ.

The new race is no mere development of the old. Those who belong to it are not the fruit or offspring of a natural

[1] Rev. Joseph Cook. "Lectures," vol. v., p. 47.

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evolution. Their presence is not accounted for by any laws of "variation with descent." Their nature and character are not hereditary. They are "born not of blood, nor of the will of the flesh, nor of the will of man, but of God."[1] They are in a special sense "God's workmanship, created in Christ Jesus unto good works."[2] They have, in the language of Scripture, "put off the old man with his deeds, and have put on the new man, which is renewed in knowledge after the image of Him that created him."[3] Their nature, like that of "the second man," is "from above."

The moral character of the new race, as portrayed by its Founder, is one possessed of Divine but imperfectly developed powers and tendencies, which are progressively, and at length perfectly liberated from the trammels of the natural state with which they are temporally connected. The heirs of "the kingdom of heaven" are poor in spirit; they mourn; they are meek; they hunger and thirst for righteousness; they are merciful; they are pure in heart; they are peacemakers; they are persecuted for righteousness sake. They are the salt of the earth, and the light of the world. Their alms, their prayers, their fastings are in secret. Their treasure is in heaven. They love their enemies, and do good to those who despitefully use them, as the children of Him who makes His sun to shine on the evil and on the good, and sends rain on the just and on the unjust. The law which regulates their lives is one written in their hearts; the royal law of universal love; the love of which Christ Himself is the perfect manifestation.

As the Type of this new nature is Christ, so its source and support are in Him. He is the True Vine, His people are the branches. They are inwardly united to Him, and share His life. His grace is their inspiration and strength. Union with Him is the secret of their holiness, the spring of

[1] John i. 13. [2] Eph. ii. 10. [3] Eph. iii. 9, 10.

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their joy. One Spirit dwells in Him and in them. Walking in that Spirit they prove they are the sons of God, and are victorious over the world, the flesh, and the wicked one.

As in the history of the world that was not first which is *human*, but that which is *animal*, and afterwards that which is human; so in the history of man "that was not first which is *spiritual*, but that which is *natural*, and afterwards that which is spiritual."[1] In both cases the higher nature is the second, and not the first to appear.

The new nature does not enter on the scene without strife. The "struggle for existence" between competing species is revealed in the conflict between the old nature and the new, in its most intensified form. The flesh perpetually wars against the spirit, and the spirit against the flesh. The world which hated Christ hates and persecutes His disciples. They that are Christ's have crucified the flesh, and are crucified to the world, and the world to them.

As in the struggle between animals and man, the older nature is overcome by the newer and younger, so it is in the warfare between the natural and the spiritual. A remarkable type of the conflict is seen in the case of Jacob and Esau. "Two manner of peoples" are separated from the same parental source. From the dawn of their existence they are engaged in mutual strife. Victory rests not with the first, but with the second born. A fiat has gone forth, "*The elder shall serve the younger.*"[2] Such is the law both of nature and of grace.

Of this great law human history is the prolonged illustration. And in the triumph of the younger race there has been a marked "survival of the fittest." The race fittest to live in a world divinely governed has lived. Thus in Patriarchal times, while the race of Cain perished, that of Seth survived. Thus in Jewish history the Israelites of the first numbering fell in

[1] 1 Cor. xv. 46. [2] Gen. xxv. 23.

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the wilderness, while those of the second entered the land of promise. Thus in the story of the twofold seed of Abraham, his natural seed and his spiritual seed, the first has been cast out to make room for the second. And thus in the subsequent history of the struggle between the Christian Church and the heathen, Roman empire, the fittest to live under God's government, though almost crushed by persecution, overcame, and still survives. "Ye are of God, little children, and have overcome them; because greater is He that is in you than he that is in the world."[1] "Out of the mouths of babes and sucklings Thou hast ordained strength, because of Thine enemies, that Thou mightest still the enemy and the avenger. . . . O Lord, our Lord, how excellent is Thy name in all the earth."[2]

We have no scope here for the story of the children of faith! "The time would fail" us to tell of Abel, and Enoch, and Noah, and Abraham, and Isaac, and Jacob, and Joseph, and Moses, and Rahab, and Gideon, and Barak, and Samson, and Jephtha, and David, and Samuel, and the prophets, and the apostles, and the confessors, and the martyrs, and the saints, who in long succession have trodden the self-same path, and compass us still as a great "cloud of witnesses"! They are a multitude of all nations, which no man can number! They are not of the world, but are chosen out of it, separated from it, and destined as a race to replace it. Their numbers are increasing day by day in the power of a life whose spiritual character and unconquerable tenacity demonstrate it to be divine.

XII. *The anticipation in Prophecy of a Universal and Eternal Kingdom of God, the final scene in the long series of dispensations introduced by the Geologic ages.*

Prophecy reveals the future of the earth and man. It shows us a future state of things in the world as much higher

[1] 1 John iv. 4. [2] Psa. ii. 9.

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than the present, as the present is higher than the pre-Adamic past. On combining the view presented in prophecy with that afforded by geology and history, we are enabled to trace the outline of a far-reaching progress, involving "the gradual ascent *from a Physical to a Moral, and from a Moral to a Spiritual Universe.*" [1]

1. The most salient feature in unfulfilled prophecy is the prospect of the advent of an entirely new order of things described as the *Palingenesia*,[2] or "*restitution of all things.*" [3] Of its "times of refreshing" and "restitution," "God has spoken by the mouth of all His holy prophets since the world began." As the antediluvian world perished by the flood, and was succeeded by the world which now is, so, according to prophecy, "the heavens and the earth which are now" are destined to be consumed by fire, and be replaced by "new heavens and a new earth" wherein shall dwell "righteousness." [4] There is to be a complete renovation, but no utter annihilation of the earth. This planet of ours, which has been the scene of Redemption, will continue to exist. Purged by fire, with sin, pain, and death banished for ever, the earth is to become the Paradisaic habitation of a redeemed and holy humanity.

2. According to the testimony of prophecy the advent of this final and perfect terrestrial state *will be preceded by the Millennial reign of Christ and His saints.* "Blessed and holy is he that hath part in the first resurrection; on such the second death hath no power, but they shall be priests of God and of Christ, and shall reign with Him a thousand years." [5] This millennial age will be the period of Christ's manifested, Mediatorial kingdom. As the Son of

[1] Birks, "Outlines of Unfulfilled Prophecy," p. 9.
[2] Matt. xix. 18. [3] Acts iii. 21. [4] 2 Pet. iii. 5-13.
[5] Rev. xx. 6.

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God He will share for ever dominion with the Father, for of the Son it is written, "Thy throne, O God, is for ever and ever."[1] As Man, too, He will possess an everlasting dominion to be shared with His people, for of the Son of man it is written, "His kingdom shall have no end."[2] But His dominion *as Mediator* will cease with His mediatorial work at the close of the millennial age, for then shall have come "the end when He shall have delivered up the kingdom to God, even the Father; when He shall have put down all rule, and all authority, and all power. For He must reign until He hath put all enemies under His feet. The last enemy that shall be destroyed is death."[3] "The millennial reign of Christ is an introductory time of putting down all rule and all authority and power, of bringing everything into subjection to Divine authority, of giving men one last supreme season of probation under the righteous government of Christ Himself. *It is the final stage in the work of redemption* prior to the introduction of its eternal *results*. It closes by the destruction of the last enemy, death, together with the final expulsion and punishment of its author; and the eternal kingdom dates from this close and completion of the redeeming work of Christ."[4]

3. The manifestation of the kingdom of God is to be introduced by the visible Advent of "the Second Man," "the Lord from heaven." The second coming of Christ in His glory is the "blessed hope" set before the Church on almost every page of the New Testament. It is the keynote of the closing prophecy of Scripture. "Behold He cometh with clouds, and every eye shall see Him." The volume of Revelation terminates with an express and solemn promise concerning this Advent, "Surely I come quickly." The Second Advent will be as literal as the first. As our Lord came of old in

[1] Heb. i. 8. [2] Luke i. 33. [3] 1 Cor. xv. 24, 25.
[4] "Light for the Last Days," p. 490.

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visible humiliation, so will He come again in visible glory; as He came to suffer, so will He come to reign.

4. The kingdom of Christ and of His saints is set before us in prophecy as *the last of five universal kingdoms*, four of which are human and temporal in character.

These four successive earthly kingdoms are depicted in prophetic symbolism as four parts of a great metal image destined to be smitten and destroyed by "a stone" "cut out without hands"; which stone then becomes "a great mountain," and fills "the whole earth."[1]

They are also represented as four wild beasts, whose dominion is succeeded by the reign of "the Son of man."[2]

By the universal consent of the Church of all ages and of all sections, these four universal Gentile empires are admitted to be the *Babylonian*, the *Persian*, the *Grecian*, and the *Roman*. "The internal scriptural and historical evidence in favour of this interpretation is so overwhelming, and the agreement of all students and commentators of the early Church, of the Greek and Roman Catholic Churches, and of all Protestant Churches, so complete, that the few who have of late years ventured to call it in question must be regarded as rash, unsafe, presumptuous guides, who would destroy the very basis of all sound and solid interpretation of Scripture prophecy."[3] It is important to observe that we are not left to speculation as to the meaning of the prophecy concerning the five empires, for it contains an express "interpretation" of its own symbols. To Nebuchadnezzar, king of *Babylon*, Daniel says: "We will tell the *interpretation*," "*thou art this head of gold*"[4] in the great image. The first of the four empires is then certainly the Babylonian. "After thee shall arise another kingdom inferior to thee"

[1] Dan. ii. 31–35. [2] Dan. vii. 1–14.
[3] "Approaching End of the Age," p. 29.
[4] Dan. ii. 38.

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adds Daniel, and on turning to the fifth chapter of his prophecy, we see that this was the Medo-Persian power. To the last Babylonian monarch, Daniel says: "Thy kingdom is divided and given to the Medes and Persians"; and we read, "In that night was Belshazzar the king of the Chaldeans slain, and Darius the Median took the kingdom." [1]

Following the second, or Persian kingdom, represented by the *silver* part of the image, the prophet tells us there was to be "a third kingdom of *brass*, which shall bear rule over all the earth." It is notorious that the kingdom which overthrew the Persian was the Grecian under Alexander the Great. In the eighth chapter of Daniel this succession is distinctly foretold, in other symbols, which are also interpreted. A ram is seen in the vision, smitten and destroyed by a he-goat. In the "interpretation" we read, "The ram which thou sawest having two horns are the kings of *Media and Persia*; and the rough goat is the king of *Grecia*." [2] The third kingdom then is that of Greece, and this third kingdom was to be succeeded by a fourth and final Gentile empire, of which we read "the fourth kingdom shall be strong as *iron*: forasmuch as iron breaketh in pieces and subdueth all things; and as iron that breaketh all these shall it break in pieces and bruise." The same empire is represented in the parallel vision granted to the prophet Daniel as "a fourth beast, dreadful and terrible, and strong exceedingly, and it had great iron teeth; it devoured and brake in pieces, and stamped the residue with the feet of it." In the angelic "interpretation" of the vision we read, "The fourth beast shall be the fourth kingdom upon earth, which shall be diverse from all kingdoms, and shall devour the whole earth, and shall tread it down and break it in pieces." This, then, can be none other than the Roman empire which overthrew the Grecian, and justified every feature in the prediction of

[1] Dan. v. 28–31. [2] Dan. viii. 20, 21.

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all conquering strength and cruel ferocity. The fact that the *same symbol* as that used in Daniel, the symbol of the ten-horned wild beast, is unquestionably employed again and again in the Apocalypse with reference to the Roman Empire settles finally its application.

5. It is a deeply interesting fact that *these four Empires are similarly presented as successive in the celebrated Astronomical Canon of Ptolemy*, which traces the course of Imperial rule from the era of Nabonassar, king of Babylon, to the reign of the Roman Emperor Antoninus. Between the historical and chronological outline given in the Canon of Ptolemy, and that set forth in the fourfold image of Nebuchadnezzar's vision, there is the most striking and complete agreement. "As the good Spirit of God," says Faber, "employs the four successive empires of Babylon, Persia, Greece, and Rome, in the capacity of THE GRAND CALENDAR OF PROPHECY, so Ptolemy has employed the very same four empires in the construction of his invaluable Canon; because the several lines of their sovereigns so begin and end, when the one line is engrafted upon the other line, as to form a single unbroken series from Nabonassar to Augustus Cæsar.

In each case the principle of continuous arrangement is identical. Where Ptolemy makes the Persian Cyrus the immediate successor of the Babylonic Nabonadius, or Belshazzar, without taking into account the preceding kings of Persia or of Media, there, in the image, the silver joins itself to the gold; where Ptolemy makes the Grecian Alexander the immediate successor of the Persian Darius, without taking into account the preceding kings of Macedon, there, in the image, the brass joins itself to the silver; and where Ptolemy makes the Roman Augustus the immediate successor of the Grecian Cleopatra, without taking into account the long preceding roll of the Consular Fasti and the primitive Roman monarchy, there, in the image, the iron joins itself to the

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brass. In short, *the Canon of Ptolemy may well be deemed a running comment upon the altitudinal line of the great metallic image.* As the parts of the image melt into each other, forming jointly one grand succession of supreme imperial domination, so the Canon of Ptolemy exhibits what may be called a picture of unbroken imperial rule, though administered by four successive dynasties, from Nabonassar to Augustus and his successors."[1]

6. It is a remarkable fact that from the celebrated *Era of Nabonassar*, Feb. 26, B.C. 747, the chronological, historical and astronomical starting-point of the kingdom of Babylon according to the Canon of Ptolemy, *to the end of the Western Roman Empire*, the deposition of Romulus Augustulus, on Aug. 22, A.D. 476, the interval is exactly 1,260 lunar years, or three and a half prophetic "Times" in lunar measure. This fact was first published sixteen years ago in my work on "The Approaching End of the Age." "The character, magnitude, and multiplicity of the events constituting the rise, course, decline and fall of the four great Pagan empires of antiquity, render the fact that *their joint duration* was, as shown in the Calendar, limited to the exact bisection of "seven times," or the prophetic period of "Time, times, and a half," one of the profoundest interest and importance."[2]

Reckoning from the same Babylonian starting-point, the era of Nabonassar, B.C. 747, 2,520 years, or "Seven Times" in *solar* measure, extend to the accession of Louis XVI., A.D. 1774, who lost his throne and life in the French Revolution. Both Alison and Carlyle make the accession of Louis XVI. the commencing point in their histories of that great revolutionary period. The relation of the Papacy, and of the French monarchy, to the fourth or Roman empire, in its "ten-horned" Gothic form, is such as to impart a terminal

[1] "Sacred Calendar of Prophecy," vol. ii. p. 7.
[2] "Approaching End of the Age," p. 669.

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character in the history of that empire to the revolutionary movement which violently overthrew both the Papacy and the Monarchy by which it had been sustained,—a monarchy which it had employed for centuries as the chief agent in persecuting and destroying those who rejected its false doctrines and blasphemous assumptions.

Retribution is written on the history of the French Revolution. In that Fire Sea flaming skyward there was visible an uncreated Hand! "Verily, there is a God that judgeth in the earth."

7. Here then we find ourselves on *the firm ground of history,—of history running on foreseen lines, and measured by foretold periods*—periods dating from great eras, and reaching to similarly important historical termini. The fulfilment of prophecy in the course of history, and notably in the history of the four great empires of Babylon, Persia, Greece, and Rome, and in the advent and death of Jesus Christ, the promised Messiah, and the foundation and triumphs of His Church, amply warrants us in anticipating the accomplishment of those sacred predictions which are still unfulfilled. Every past fulfilment of prophecy is a pledge of future fulfilments. If not one word has failed of all that God has spoken by the mouth of His holy prophets, not one word shall fail, but all be accomplished in due season. As the four great Gentile kingdoms foretold twenty-five centuries ago have in turn arisen, and run their predicted courses, so *the foretold fifth kingdom*, "the kingdom of the God of Heaven," which already exists in a spiritual form in the hearts of the regenerated, shall be revealed in an outwardly visible and glorious form, to destroy the corrupt "kingdoms of this world," and establish the prevalence of universal righteousness and peace. "Then shall the righteous shine forth as the sun in the kingdom of their Father."[1]

[1] Matt. xiii. 43.

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8. Prophecy foretells a glorious and eternal future, for the earth as yet to be inhabited by the perpetual generations of a redeemed and holy humanity. In the writings of the prophets of the Old Testament, and in those of the Apostles of the New, and especially in the sublime visions of the Apocalypse, the new heaven and earth of the future are set before us, and the new Jerusalem is seen "descending out of heaven from God," "that great city," "having the glory of God," in whose light "the nations of the saved shall walk," into whose palaces "the kings of the earth" shall "bring their glory and honour," whose gates shall never be shut, and where God's servants "shall see His face," and bear His name upon their brows, and shall "reign for ever and ever." While beholding in vision the descent of the new Jerusalem into the new earth, we hear the final utterance of "a great voice out of heaven saying, Behold the Tabernacle of God is with men, and He will dwell with them and they shall be His people, and God Himself shall be with them, and be their God; and God shall wipe away all tears from their eyes, and there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain; for the former things are passed away. And He that sat upon the throne said, Behold I make all things new." [1]

In conclusion, just as *Geology* and *History* look into the distant past of the story of the earth and man, and unveil the records of a progress stretching through measureless ages, coming down to the days in which we live, so *Prophecy* looks into the distant future, and reveals the prospect of endless ages yet to be, in which humanity, redeemed from sin and sorrow, from pain and death, shall inhabit this earth of ours, renewed and beautified, illumined, and transformed, and exalted to occupy a place of honour and glory among the innumerable abodes of a holy and blissful universe.

Two long series of events connected with the earth and

[1] Rev. xxi. 3–5.

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man are thus set before us in the records of Nature and Revelation; in each of the two series of events we mark the same progressive movement, from lower to higher stages; the same vastness of preparation, the same loftiness of outlook, the same moral end, the same measurelessness of duration; the one series stretching through the almost interminable past, and the other through the altogether interminable future! And the two series of events thus unrolled before our gaze are seen to be mutually adjusted, and linked by the closest continuity. The second is the flower and fruit of the first; the glory and maturity to which its ages form only the introduction. Without the first the second would lack foundation; without the second the first would be a foundation destitute of superstructure. The first is the silent prophecy, the eloquent pledge of the second. The second is the realization of the aims and aspirations of the first. What God hath joined together let no man put asunder! The natural and the revealed are not only connected by the multiplied marvels of *analogy*, but by the powerful links of a profound *adjustment*, involving vital and historic continuity, and the enduring dominion of a common end.

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II. The Historical Adjustment.

Christ the Centre of History.

What is the date of the present year? The reply to this question reminds us of the fact that the most civilized nations of the world reckon their dates from the birth of Jesus Christ. The times of all events which happened before His birth are measured from the date of His Nativity, and denominated B.C. or Before Christ; while the times of all events which have taken place since His Nativity are distinguished as A.D. (Anno Domini) or are reckoned from the year of our Lord. Thus the chronological usage of the most civilized nations of the world recognises the Advent of Christ as the centre of human history.

1. Christ the Centre of Jewish and Christian History.

That *the Fall of the Jewish nation*, and *the Foundation of the Christian Church* coincided with Christ's Advent nearly nineteen centuries ago, are facts which cannot be doubted. Josephus, the Jewish historian, has left on record a detailed account of the final overthrow of the Jewish State by the Romans, including the destruction of Jerusalem and its Temple. That memorable event which terminated the connection of the Jews with the land of their fathers, and initiated the completely subject and scattered state in which they still, as a people, continue, took place about forty years after their crucifixion of Jesus Christ. The twenty-one centuries which extended from the time of Abraham to the Roman destruction of Jerusalem comprised the entire period of the growth, maturity and decline of the Jewish nation, as possessing a more or less independent government, and a

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territory of their own among the nations of the world. The eighteen centuries, on the other hand, which have followed the fall of Jerusalem have witnessed the marvellous rise and extension of the Christian Church to its present position.

Midway between these two long streams of history, *at their meeting point*, occurred the Advent of Jesus Christ. That advent was the signal for the fall of the Jewish State and religion. In A.D. 70, the year of the destruction of Jerusalem, Jewish sacrifices, having continued, with only one short intermission, for 1600 years, finally ceased to be offered. Since that terminal date the Jewish people have remained without an altar, without a priest, without a temple, without a prophet, without a king, without a land of their own, exiles and wanderers among the nations. The whole history of the Christian Church, the whole progress of the Christian religion, the whole course of Christian civilization, on the other hand, date from the Advent of Jesus Christ. He who said, "on this Rock will I build my Church and the gates of hell shall not prevail against it," was the Founder of the Church. Through the influence of the Church which He thus founded, the religion and civilization of the entire Roman empire have been transformed; and every nation on earth has been more or less affected. As to the vastness of the change in the world produced by the Advent of Jesus Christ, it is not too much to say in the eloquent words of Richter, "Jesus Christ, the holiest among the mighty, the mightest among the holy, lifted with His pierced hand empires off their hinges and turned the stream of centuries out of its channel, and still governs the ages."

The relation which Christ holds to the two streams of Jewish and Christian history, is strikingly seen in the light of the remarkable historical and chronological *Analogy* which exists between them. We are assured by apostolic authority that many events in Jewish history were typical of facts in Christian history. But the typical bearing of Jewish history

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on Christian is much more comprehensive than even the Apostles could have known. It was not given to them to anticipate in detail the events of the last eighteen centuries, and therefore they were not in a position to compare them with the events of the previous two thousand years of Jewish history. It is otherwise with us: both histories lie unrolled before us. Their comparison shows that the analogy in question has slowly and gradually unfolded itself from century to century, and that now in the present day it lacks but little of completeness.

Analogy between Jewish and Christian History.

In order to trace the broad resemblance existing between them, we have but to mark the leading divisions of the two histories. *Each falls naturally into three principal parts.* Jewish history, as extending from Abraham to Christ is divided into three leading sections by the Exodus and the Captivities. Before the Exodus the Jews were merely a Hebrew family. The Exodus from Egypt and giving of the law inaugurated the national period of their history as the people of Israel, which continued to the Captivities. The return from Babylon introduced a third period, characterized by the restoration of two tribes out of the twelve to the possession of Palestine. The three names, *Hebrews*, *Israelites*, *Jews*, may be considered as characteristic of the development of the seed of Abraham in these three successive periods. Finally, it should be remarked, that while the close of the first of these periods was signalised by *a great deliverance*, the second or central period was marred by *a grievous Apostacy*; and the third and closing period distinguished by *a glorious Reformation.*

A similar order can be clearly traced in the history of the Christian Church. During the first three centuries of its existence it suffered under the cruel persecutions of heathen

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Rome, as the Jews had suffered under heathen Egypt. Then took place the memorable *deliverance* of the Church under Constantine, the overthrow of heathenism in the Roman Empire, and the elevation of the Church to an imperial position. The thousand years which followed in Christian history, the Mediæval period (like the central thousand years in Jewish history extending from the Exodus to the Captivities) was characterized by a general and profound *Apostacy*. This Apostacy of the Middle Ages was succeeded by the great *Reformation* of the sixteenth century. As only two tribes out of the twelve were included in the return from the ancient literal Babylon, so only a part of the apostate Church has returned from the modern antitypical Babylon. Just as the ten tribes were never restored, the Eastern Church has never had a Reformation. In fact the division of the tribes into the two kingdoms of Israel and Judah has had a remarkable parallel in the division of the Church into Eastern and Western sections; and the internecine wars, apostacies, and chastisements in the two cases are in striking analogy.

Further, each of the three great divisions of Jewish and Christian history just indicated may be subdivided into two parts. The following table will show this division at a glance.

Jewish History.

I.	I.	Era of Foundation.—Abraham to Joseph.
	II.	Era of Persecution.—Servitude and sufferings in Egypt.
II.	III.	Era of Triumph.—Moses to David.
	IV.	Era of Apostacy.—Israel and Judah under the Kings.
III.	V.	Era of Reformation.—Return from Babylon.
	VI.	Era of Retribution.—Destruction of Jerusalem.

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Christian History.

I.	I.	Era of Foundation.—Apostolic Church.
	II.	Era of Persecution.—Martyr Church.
II.	III.	Era of Triumph.—Imperial Church.
	VI.	Era of Apostacy.—Mediæval Church.
III.	V.	Era of Reformation.—Reformed Church.
	VI.	Era of Retribution.—French Revolution, fall of the Papacy, and impending judgments on Christendom.

Synchronous with the fall of the Jewish State was the evangelization of the Gentile world; and the present era of the overthrow of national religious establishments (including the Anti-Papal French Revolution of last century, and the fall of the Papal temporal power in 1870) has proved to be an era of missionary activity in the Protestant churches such as has never before been witnessed.

In relation to these two analogous streams of history, the past advent of Christ plainly occupies a central place. It stands at their meeting point; and it does more; it constitutes their centre of unity, for it unites them as two sections of one providential plan, since Jewish history prepared the way for Christ's redeeming work, while Christian history has resulted from His coming.

While recognising the *analogies* between the two histories their *contrasts* should not be overlooked. These involve the contrasts between type and anti-type, the external and the internal, the legal and the evangelical, the national and the universal.

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2. Christ the Centre of Gentile History.

i. *Central Period in Roman History.*

The Roman was the last and greatest of the world's empires. Seven centuries were occupied by its growth to universal supremacy, and fourteen centuries more by its decline and fall. No efforts to reconstruct it succeeded. Though held together in the Middle Ages by submission to the tiara-crowned ruler seated in the city of the Cæsars, claiming to be the "Father of princes and the supreme Judge of the universe," the broken fragments of the Roman Empire have never been politically re-united. But the name of Rome still continues to present "the vicissitudes of centuries as a vast, continuous, harmonious whole." Thebes and Nineveh have perished, Babylon, Persepolis, Carthage are no more, but Rome remains, "eternal Rome," a living witness in the present day to the truth and reality of its marvellous and incomparable past.

The central point in the history of the great Roman Empire was unquestionably the culmination of its power and glory in the days of Augustus and the Antonines. The initial century of the Christian era opened with the reign of Augustus Cæsar, the first of a long line of Roman Emperors; for in his days Jesus Christ was born at Bethlehem. Born under Augustus, crucified under Tiberius, Jesus Christ appeared among men when Gentile dominion had attained its widest range and loftiest authority, and thus at the central point in the long succession of historic ages.

ii. *Relation of the Roman Empire to the Christian Church.*

What *Environment* is to *Organism*, the Roman Empire was to the visible Church founded by Jesus Christ in the days of the Cæsars.

The Roman Empire was for centuries the civil sphere of the Church's existence. In it, as far as her external life is concerned, she moved and had her being. Nor was the sphere

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a narrow one. Bounded by the Atlantic Ocean on the west, by the Rhine and Danube on the north, by the Euphrates on the east, and the deserts of Arabia and Africa on the south, the Empire of Rome "comprehended the fairest part of the earth, and the most civilized portion of mankind."

The populousness and high civilization of the empire were remarkable. "Ancient Italy is said to have contained eleven hundred and ninety-seven cities." Spain, according to Pliny, had three hundred and sixty cities; the cities of Gaul were numerous. "Three hundred African cities had acknowledged the authority of Carthage, nor is it likely that their numbers diminished under the administration of the Emperors." "Under the reign of the Cæsars proper Asia alone contained five hundred populous cities, enriched with all the gifts of Nature, and adorned with all the refinements of art." "All these cities were connected with each other, and with the capital, by the public highways, which, issuing from the forum of Rome, traversed Italy, pervaded the provinces, and were terminated only by the frontiers of the empire."

The remains of the temples, palaces, theatres, triumphal arches, aqueducts, and other structures erected during the existence of the Roman Empire, abundantly attest the truth of its history. The numerous and touching inscriptions in the catacombs testify to the sufferings of the early Christians under Roman persecution. The noble arch of Constantine, built to commemorate the Emperor's victory over Maxentius, is a witness to the overthrow in the fourth century of the persecuting power and dominion of heathen Rome. The magnificent Pantheon, originally devoted to all the divinities of heathenism, has, ever since the beginning of the seventh century, been dedicated to the memory of the martyrs who died for repudiating their worship. Christianity early became the established religion of the Roman Empire, and countless Christian churches still uplift above the ruins of heathen temples, the symbol of the triumphant Cross.

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3. The Dicentric Character of History as Related to the First and Second Advents of Christ.

"Human history," says Dr. Henry Smith, "has no other centre of convergence and divergence than the CROSS on Calvary. He adds, "history has no other prophetic end than the KINGDOM of Immanuel." The Cross and the Crown, the Temple and the Throne, these are the two great poles of the world's historic movement.

As side by side stood Moriah and Zion, the Mount of Sacrifice, and the Mount of Rule, the priestly and kingly centres, the Temple and the Throne, so in human history stand the two Advents of Christ, His Advent to suffer, and His Advent to reign.

All the great movements of human history are centred in one or other of these two supreme events. Sacred Jewish and Christian history flow to and from the First Advent, and the Cross of Calvary; while secular Gentile history, including the course of the four great Empires, has its goal in the Second Advent, and the manifested Kingdom of God.

We have already pointed out the existence of an analogous *law of dual centralization* in organic Nature. In plants all the parts and organs have reference to a common *life* centre. In animals, in addition to a life centre, there is a centre of *motion.* Plants are monocentric; while animals are dicentric. In vertebrate animals this dual system is seen in its perfection. The *heart* and the *head, the hæmal and neural centres,* are connected with the support of life, and the control of movement. The two arches in each vertebra in the spinal column are related to this two-fold system. The upper arch protects nervous matter (hence called neural); the lower arch (the hæmal) protects blood-vessels. Such is the structure of the typical vertebra. "Knowing the type, we can explain all departures from it, whether owing to omission or contraction, adhesion or complication of pieces." The struc-

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ture of the human frame, and the order of human history are analogous in their dicentric character. In the latter as in the former, there is a centre of *life*, and a centre of *motion*. In history the one Christ occupies both centres. His Cross is the *heart* of the moral system; His kingdom its *head*.

4. The Central Position of the Work of Redemption as the End to which all the Great Events of History are Adjusted.

The learned Swiss historian, John von Muller, gives the following striking confession as "the result of his life-long labours" extracted from 1733 authors in 17,000 folio pages:—"*Christ is the key to the history of the world.* Not only does all harmonise with the mission of Christ; *all is subordinated to it.* When I saw this it was to me as wonderful and surprising as the light which Paul saw on the way to Damascus, the fulfilment of all hopes, the completion of all philosophy, the key to all the apparent contradictions of the physical and moral world."

The "seemingly isolated and fragmentary events" of history, says Dr. Henry Smith, are "parts of one connected and orderly series, of which the divine providence is the method, human welfare the chief subject, and the divine glory the last chief end."

History as a mere chronicle of facts has indeed its value; as the biography of individuals, it has its charms, its warnings, and its inspirations; as the biography of nations, it is an earnest and serene moral teacher, discoursing ever of justice, more true and wonderful than any drama; but history, as the biography of humanity, binding together all the empires and races that have peopled the earth, in one unfolding plan, reaching already through six thousand years of time, centring in one kingdom, which began in the beginning to be consummated only at the end, progressive, conflicting, never subdued and ever victorious, the only kingdom which has survived all change and has the high augury of final supremacy; human history, when thus viewed, is more than human, it is divine, bespeaking an omniscient and omnipotent Author, rehearsing His power and proclaiming His glory. The course of Nature has been called

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"the art of God"; the course of history is His highest art, as much loftier than Nature as spirit is better than matter, and as spiritual are superior to physical ends.

Such is human history in its real and sacred aspects, thus first unfolded, in record, promise, and prophecy, in the Word of God. All Pagan literature has nothing, in grandeur and completeness, to be compared to this vision, this sublime conception of the human race, as one in origin, one in destiny, the theatre of the divine work of redemption. Augustine, the greatest teacher of the Latin Church, first felt to its full extent the grandeur of this idea, which he sets forth as his plan of history in his "City of God," an immortal work composed in reply to the heathen taunt that Christianity had ruined the earth, amid the downfall of the old Roman Empire, and in the beginning of the new Latin civilization. He daringly proclaims that the City of God, the home of the elect, is to subdue Rome and the earth; that the prophecies of Scripture foretell the fall of both the ancient and the modern Babylon. Bossuet, limited by his Roman Catholic prejudices, took up the same theme. It was expanded to still fuller proportions in Jonathan Edwards' "History of the Work of Redemption," written in the beginning of our new American civilization, and sketching with masterly outline, though imperfect in historic details, the whole of human history as a divine theodicy, a real body of divinity, which is from, for and to God, centring in the person of Christ and the work of Redemption.—DR. HENRY SMITH.

To do justice to the subject of this section we should have to quote or epitomise the whole of Edwards' work on "The History of Redemption." But this is impossible. We can do no more than indicate briefly some of the principal points in that valuable treatise.

1. Edwards shows that "the great works of God in the world during the whole space of time from the Fall to the Incarnation were all preparatory" to the coming of the Redeemer. "It was needful that there should be *a particular nation* separated from the rest of the world to receive the types and prophecies that were to be given of Christ, to prepare the way for His coming, that to them might be committed the oracles of God, that by them the history of God's great works of creation and providence might be preserved, that Christ might be born of this nation, and that from them the light of the gospel might shine forth to the rest of the world." To this end God was pleased to call and separate Abraham. The redemption of Israel from Egypt was the next great step in the Divine providence in preparation for Christ's coming; thereby was wrought out "the greatest type of Christ's redemption of any providential event whatsoever." The giving of the moral law from Sinai further pre-

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pared the way, and the typical law with its ordinances, especially those of sacrifice and circumcision. The whole history of Israel, their sufferings in Egypt, their deliverance, their journey through the wilderness, led by the pillar of cloud and fire, supplied with heaven-sent food, and water from the smitten rock; their temptations, perils, falls, conflicts and victories were typical of events in the history of the Christian Church. All these things "happened to them for types, and are written for our admonition," and thus serve the ends of human redemption. The same thing applies to the history of Joshua and the Judges, of David and Solomon, the building of the Temple, and the story of the decline of the Jewish state and religion to the captivities, followed by the great restoration from Babylon.

2. Turning from Jewish to Gentile history, Edwards points out that in the four great *empires of Babylon, Persia, Greece and Rome* "it pleased God that earthly power and dominion should be raised to its greatest height, and appear in its utmost glory before He set up the kingdom of His Son." Though the power of these mighty empires was great, "they could not uphold themselves, but fell one after another, and came to nothing." "God suffered one of those great monarchies to subdue another, and erect itself on the other's ruin, appearing still in greater strength, and the last to be strongest and mightiest of all, so that Christ in overthrowing that might, as it were, overthrow them all at once."

3. But there were other ends accomplished by the action of these empires. "By the setting up of the Grecian Empire, *the Greek language*, which had been perfected as an instrument of thought, was made common in the world," thus preparing the way for the publication of the gospel in that tongue, the language into which the Old Testament was first translated, and in which the New Testament was written.

4. The demonstration of *the insufficiency of human wisdom* was a needful part of the preparation for the preaching of the gospel. Before the true light came to enlighten the world God suffered men to do the utmost they could with human wisdom to discover the way to happiness. In this manner God proved that all the great philosophers could do was vain, "the world not becoming wiser or better under their instructions, but growing more and more foolish, wicked, and miserable." He suffered this "that it might be seen how far reason and philosophy could go in their highest ascent that the necessity of a Divine Teacher might more convincingly appear."

5. "*The dispersion of the Jews* throughout a large part of the world before the coming of Christ helped to prepare the way for His advent and kingdom, for they carried the Scriptures with them not only in the Hebrew form, but in the Greek language into which they had been translated." "This universal dispersion of the Jews contributed to make the facts concerning Jesus Christ publicly known through the world." From the various lands in which they were dispersed the Jews flocked to Jeru-

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salem at the great feasts, as was seen on the Day of Pentecost. Converted Jews carried the word of God to the Gentiles, and the presence of Jewish synagogues in many and widely separated centres, where the Holy Scriptures were read and the true God worshipped, was an advantage to the Apostles in spreading the gospel.

6. *The destruction of Jerusalem* by the Romans, which followed the rejection and crucifixion of Christ, not only "fulfilled His most solemn predictions but brought the typical Jewish dispensation to an end."

7. *The overthrow of Heathenism in the Roman Empire*, which immediately succeeded the martyr era in the early history of the Church, was another great event in the subjugation of all things to Christ. "One emperor after another had set himself with the utmost rage to root out the Christian Church from the earth." Thousands, yea, millions of Christians were put to cruel deaths. The last of their persecutions "continued for ten years together," and exceeded all the previous persecutions in cruelty, yet the gospel triumphed. "The Roman Empire had subdued many mighty and potent kingdoms, yet they could not conquer the Church which was in their hands, but on the contrary were subdued and finally triumphed over by the Church."

8. *The invasion and overthrow of Western Rome by the Goths and Vandals* was a further important step in the decline and fall of the fourth great Gentile Empire, whose removal made way for the kingdom of God. The conversion of the Gothic nations to Christianity was another marked advance in the movement of the world's redemption.

9. *The Mohammedan power*, which was set up in the East at the same time with Popery in the West was doubtless, as Scripture indicates, an effort of the great adversary to restore his kingdom in the world, but was overruled by the Providence of God to be a judgment upon Eastern Christendom, which had sunk into an apostate condition. Within the last hundred years the judgments of God have been in a remarkable way poured out upon the Mohammedan and Papal powers, wasting them and bringing them low as a preliminary to their final and complete removal.

10. Just as in the Jewish Apostacy, when the temple of Jerusalem was turned into a temple of idols, God "reserved to Himself" many faithful witnesses who refused to bow the knee to Baal, so was it in the corresponding apostacy in the Christian Church. Throughout the Middle Ages God preserved *an uninterrupted succession of faithful witnesses* to the truth of the gospel in Germany, Northern Italy, France, Britain and other countries. Foremost among these may be mentioned the Vaudois in the valleys of Piedmont, north of the plain of Lombardy. Compassed by lofty and inaccessible mountains, "this people lived for many ages in a state of separation from all the world, having very little to do with any other people, and there they served God in the ancient purity of His worship, and never submitted to the Church of Rome. Living in so secret a place, it was a long time before they were noticed.

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But at last, falling under observation, the Romanists went out in mighty armies against them, fell upon them with insatiable cruelty, barbarously massacring and putting to death men, women and children, with all imaginable tortures. Their enemies continued persecuting them with but little intermission for several hundred years, by which means many were driven out of the valleys of Piedmont. These fled into all parts of Europe, carrying with them their doctrine, to which many were brought over. Their persecutors could not by all their cruelties extirpate the Church of God, so fulfilling His word that "the gates of hell should not prevail against it."

11. *The Reformation* which succeeded the Middle Ages was, next to the overthrow of heathenism in the Roman Empire, the greatest event which has ever taken place since the foundation of Christianity. The Reformation was not only a revolt against the usurped authority of Rome, and "an assertion of the exclusive authority of the Bible, and of the right of all men to examine and interpret it for themselves," but was a restoration, on the authority of Scripture, of primitive gospel doctrines and Church order. "There had been many endeavours by the witnesses for the truth for a reformation before. But now, when God's appointed time was come, His work went on with a swift and wonderful progress."

12. *The English Revolution*, which followed a century later, was another important step in the progress of Christ's kingdom. The Reformation of the sixteenth century was far from complete. In England "the whole power of reforming heresies and errors in doctrine and worship was transferred from the Pope to the King, without any regard to the rights of synods or councils of the clergy, and without a reserve of liberty to such consciences as could not comply with the public standard." (Neal's History of the Puritans, vol. 2, p. 11.) Added to this, the Stuarts were guilty of arbitrary and tyrannical misgovernment, and of endeavouring by false and foul methods to reintroduce papal rule. At this juncture God raised up Cromwell and his Ironsides to deliver the country. The fear of God made them fearless in the presence of the common foe. In those days Windsor Castle was turned into a place of prayer, and the English Parliament became an assembly of Christian men. "We have not allowed ourselves," said Cromwell, "the choice of one person in whom we had not this good hope, that there was in him faith in Jesus Christ, and love to all His people and saints."

"What a Parliament; unexampled before and since in this world," says Carlyle.

13. The Revocation of the Edict of Nantes by Louis XIV. in 1685 was followed by *the second stage of the English Revolution in* 1688. The cause of Protestantism, trampled to the earth in France, rose to the highest power in England.

"Je suis venu ici," said the Prince of Orange, "dans ce royaume au

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desir de cette nation, pour la sauver de ruine, et pour preserver votre religion, vos lois, et libertés." And nobly he fulfilled his mission. Never since the 5th of November, 1688, when he landed in Tor Bay, has England been subjected either to arbitrary kingly government, or to foreign priestly rule.

14. *The foundation of the American republic.*

The discovery of America by Columbus 400 years ago, just before the commencement of the Reformation, was a providential event remarkably tending to promote the progress of God's kingdom. Just when most needed the New World was added to the Old, and the great North American continent, so eminently suited for colonisation, was given into the possession of an enlightened Protestant people. In the reign of James I., in the year 1620, the Pilgrim Fathers landed on Plymouth Rock. They were Puritans and Independents, who had been compelled by persecution in England to seek refuge in Holland, while that country was recovering from the horrors of the Spanish occupation. Familiar with the effects of Papal tyranny, and of prelatic oppression, they sought on the wild rocky, forest-covered shores of North America, freedom to serve and worship God according to the dictates of conscience and the teachings of the Scriptures. The New England colony was thus founded, but the first settlers had not fully learned the lesson of religious toleration. Sixteen years later, after severely persecuting the Quakers, they drove a young Puritan preacher, named Roger Williams, into the wilderness, for proclaiming the non-interference of the civil magistrate in matters of religion. Roger Williams, expelled from the settlement in the depth of winter, took refuge with the Narragansett Indians, and founded the town of Providence in Rhode Island, now a State of the American Republic. Thus was first reared in the Western world the lofty beacon of religious liberty. What America is to-day in its freedom, civilization, and prosperity, it largely owes to the Pilgrim Fathers, and to Roger Williams, the founder of the town of Providence.

15. *The French Revolution.* There is no reference to this great event in Edwards' "History of Redemption," as it took place thirty-five years after his death, which occurred in 1758.

The Protestant Reformation had been crushed in France by more than two centuries of relentless persecution. The Massacre of St. Bartholomew in 1572, and the Revocation of the Edict of Nantes in 1685, were but crises in a cruel warfare against the Huguenots, in which hundreds of thousands were slaughtered for their adhesion to the faith once delivered to the saints, and their noble attempts to obtain civil and religious freedom. France had been for centuries enslaved by Roman Catholicism; priests and kings stood side by side on the writhing necks of the people. When any resisted they were shot or hanged. "O ye poor naked wretches," exclaims Carlyle, "is this then your inarticulate cry to Heaven, as of a dumb tortured animal, crying

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from uttermost depths of pain and debasement? Do these azure skies, like a dead crystalline vault, only reverberate the echo of it on you? Respond to it only by 'hanging on the following days?' Not so, not for ever! Ye are heard in Heaven. And the answer, too, will come—in a horror of great darkness, and shakings of the world, and a cup of trembling which all the nations shall drink."

Retribution followed in the sternest form. "France ceased to be Catholic, and became—infidel; and infidel France, having thrown off all restraints of law and order, natural and Divine, plunged, before the end of the century, into the maddest excesses of revolution and crime."

"In 1793 came to its crisis that tremendous, unparalleled, irresistible movement, which put an end at once to absolute monarchy, aristocracy, and to ecclesiastical power in France, and which communicated to the neighbouring nations of Europe the shocks of revolution, and the fierce fires of democracy, together with an anti-ecclesiastical mania that has never since been allayed." [1]

"Never has the world witnessed so exact and sublime a piece of retribution." [2]

16. *The great revival of spiritual religion*, which took place in England and America in the eighteenth century, was another notable step in the advancement of God's kingdom. Multitudes were saved by its influence, and the life of the Church raised to a higher level. By its means England and America have been preserved from the deadly rationalism which has overspread the Continent.

17. *The Evangelisation of the world by missionary effort* in the present century has been its most distinguishing Christian work. The Providence of God has in our days not only opened the whole world for the entrance of the gospel, but has practically sent forth the messengers of the gospel into all the world. In the east and in the west, in the north and in the south, millions of souls have been gathered into the fold of Christ. God's ancient people, the Jews, have been emancipated to a large extent from their previously depressed condition, and thousands of them have become converts to Christianity.

On reviewing thus the story of the past, we see clear evidence of the existence of a plan of Providence, extending through the entire course of time, *having the redemption of mankind for its end.* We see that the "many successive works and dispensations of God" all tend to one great effect, and are "united as the several parts of a scheme, and all

[1] "Approaching End of the Age," p. 357. [2] Gill, "Papal Drama," p. 342

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together make up one great work," that of the restoration of a ruined world.

God's providence may not unfitly be compared to a large and long river, having innumerable branches, beginning in different regions, and at a great distance one from another, and all conspiring to one common issue. After their very diverse and apparently contrary courses, they all collect together the nearer they come to their common end, and at length discharge themselves at one mouth into the same ocean. The different streams of this river are apt to appear like mere confusion to us, because of our limited sight, whereby we cannot see the whole at once. A man who sees but one or two streams at a time cannot tell what their course tends to. Their course seems very crooked, and different streams seem to run for a while different and contrary ways: and if we view things at a distance, there seem to be innumerable obstacles and impediments in the way, as rocks and mountains, and the like, to hinder their ever uniting and coming to the ocean; but yet if we trace them, they all unite at last; *all come to the same issue*, disgorging themselves in one into the same great ocean. Not one of all the streams fail.[1]

[1] Jonathan Edwards' Works, Vol. I., p. 617.

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III. The Astronomical Adjustment.

Before attempting to exhibit the adjustment of Natural Times to Revealed it is necessary to examine the use of Number in the Bible, for a Numerical order underlies the Chronological.

(I.) Number in the Bible.

The following principles regulate the symbolical use of Number in Scripture.

1. Number in Scripture, especially in the law and the prophets, has a symbolical significance.

2. The number in Scripture which more than any other is symbolic of completeness is *seven*.

3. Seven derives its symbolical significance in Scripture from its being the sum of the numbers three and four.

4. Four is the symbol of the natural, the created, three of the Divine.

5. The union of these two numbers in the sevenfold underlies the application of the latter to the redemption order, which is characterised by the union of the natural with the Divine.

6. Octave numbers in Scripture have a palingenetic significance.

7. Sixfold numbers symbolise the unsabbatic, the incomplete.

8. The twelvefold in symbolic numbers is formed by the multiplication of the fourfold by the threefold. The twelvefold and the sevenfold are analogous, as formed by the combination of four and three.

9. As four and three united symbolise the union of the natural with the Divine, so four and one, or five.

10. The tenfold in symbolic numbers is the duplication of the fivefold.

11. The elevenfold and thirteenfold sustain the same relation to the tenfold and twelvefold that the octave does

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to the sevenfold. The octave, elevenfold, and thirteenfold are palingenetic numbers, or numbers symbolic of re-beginning; initial numbers of a new order of things.

We shall examine in the first place the use in Revelation of Trine and Fourfold numbers, whose combination gives rise to the Septenary measures of Revealed Chronology.

1. THE USE OF THREEFOLD NUMBERS IN SCRIPTURE. A most prominent and important feature in the Scripture use of threefold measures is their relation to the Divine. God is revealed to us in Scripture as One, and yet Three—Three in One. The Seraphim cover their faces in His presence, while they cry, "Holy, holy, holy, is the LORD of Hosts; the whole earth is full of His glory." "Holy, holy, holy, LORD GOD Almighty; which was, and is, and is to come." In the sacred Scriptures God is revealed to us as the Father, the Son, and the Holy Ghost. The redeemed have access by the Son, through the Spirit, to the Father. Christians are baptized in the Name of the Father, the Son, and the Holy Ghost. The Apostolic benediction is "The grace of our Lord Jesus Christ, the love of God, and the communion of the Holy Ghost." "The only begotten Son, Who is in the bosom of the Father," and Who reveals the Father, sends the Comforter, even the Holy Spirit of Truth. The mysterious threefold nature of uncreated perfection is reflected in the trine ascriptions of praise contained in the Old Testament and the New, and also in the threefold character of various objects, ceremonies, rites, times and seasons connected with the worship of the triune Jehovah: thus the Tabernacle and the Temple were each threefold in their structure, consisting of an outer court, a holy place, and the holy of holies; the Tabernacle contained three principal vessels connected with these three divisions, the brazen altar, the golden altar, and the ark; the holy place contained three sacred vessels, the golden altar, the table of

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shewbread, and the candlestick. Thrice in the year all Israel was required to assemble in Jerusalem for the worship of God: at the feast of Passover, at the feast of Pentecost, and at the feast of Tabernacles. The nature of man himself, who is formed in the image of God, is declared in Scripture to be tripartite, consisting of spirit, soul, and body. "The very God of peace sanctify you wholly, and I pray God your whole spirit, soul, and body be preserved blameless unto the coming of our Lord Jesus Christ."

The number Three in relation to time is the most complete of all numbers. It has a beginning, a middle, and an end, and represents the division of time into past, present, and future. The feature of threefold time is attached to some of the most important periods in the earthly life of incarnate Deity. The interval from our Lord's Nativity to His Baptism "was about thirty years"; our Lord's ministry lasted three complete years; the darkness of the Cross continued for three hours, while the subsequent dominion of death lasted during thrice twelve hours. Our Lord's resurrection took place "on the third day,"—a fact much insisted on in Scripture. Our Lord's entire lifetime consisted of thirty-three complete years, or the third of a century. In harmony with the third day Resurrection period, we observe that the emergence of the earth from its buried condition beneath the waters took place on the third day. The call of Abraham was at the termination of the third of the seven periods of twenty-five years each, of which his life was composed; in his journey with Isaac, Abraham reached the place of sacrifice on the third day. The darkness of Egypt lasted during three days; in their Exodus from Egypt the third journey or march of Israel brought them to Pi-hahiroth, by the sea; having passed the sea, they went three days in the wilderness, and pitched in Marah. In the third month they reached Sinai; on the third day the Lord descended upon Sinai; their third journey brought them to Horeb, where Aaron died. Three days after reaching Jordan, Israel crossed under the leadership of Joshua into the Land of Promise. The prophet Jonah was raised from the depths of the sea after a typical burial of three days and three nights; hence the Resurrection of our Lord on the third day is called by Him "the sign of the prophet Jonas," the only sign to be given to an evil generation, guilty of the rejection of Messiah —a prediction corresponding with the memorable sentence, "Destroy this Temple, and in three days I will raise it up again." Under the Law, the year of tithing for the benefit of the Levite, the fatherless, the stranger, and the widow, was the third year; the entrance of the Levites on the service of the Tabernacle was from thirty years old, and in Num. iv. this

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law is seven times repeated. The sacred feasts in the first and seventh months are comprehended in three weeks; the Passover in the first month was on the 14th day, and the feast of unleavened bread lasted from the 15th day to the 21st—together three weeks exactly.

Threefold numbers are remarkably prominent in the Apocalypse. The drama of the book is threefold, consisting of the series of seals, trumpets, and vials; the three last seals, the three last trumpets, and the three last vials, are distinct from the four first in each case—a remarkable example of the tri-quaternary principle. Thus the seven trumpets are divided into those of the 4 winds, and those of the 3 woes. Numerous examples occur in the Apocalypse of tripartite division, as the third part of waters, the third part of the sea, the third part of ships, the third part of trees, the third part of the sun, the third part of the moon, the third part of the stars which were smitten, the third part of men slain, the third part of the stars of heaven drawn after him by the great red dragon.

The order of history unfolded in Scripture is that of three principal dispensations, the Patriarchal, the Jewish, and the Christian. The third of these has witnessed the advent of Messiah, and will be followed by the restitution of all things, of which God has spoken by the mouth of all His holy prophets since the world began.

2. The Use of Fourfold Measures in Scripture.

Fourfold measures are systematically associated in Scripture with creature forms. There exists a natural foundation for this fact in the four great types of creature forms to which we have already referred, and in the fourfold structure of the fourth of these, the vertebrates. The name quadruped is indicative of this form. Mammals are spoken of in Scripture as "the four-footed beasts of the earth." Of this fourfold structure the form of man is the archetype. The typical plan is preserved, though the form is varied for special ends, in the wings and legs of birds, the fins of fishes, etc. The human heart is fourfold, and so is the system of circulation, of which it is the centre. The Cross, which is in a sense the destruction of the flesh, is adapted to its fourfold form.

History, sacred and profane, presents the course of four great Gentile empires symbolized by the fourfold image consisting of gold, silver, brass, and iron, and also by the four wild beasts of prophecy. Hence the angelic view of the drama of Gentile monarchies was briefly and strikingly expressed in the words, "These great beasts which are four, are four

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kings (or kingdoms, v. 23) which shall arise out of the earth, but the saints of the Most High shall take the kingdom and possess the kingdom for ever, even for ever and ever." Of these four wild beasts, symbolic of Gentile kingdoms, the first was a lion with eagle's wings; the second a bear, raising itself on one side, with three ribs in its mouth, devouring much flesh; the third a leopard, with four wings and four heads; while the fourth beast was dreadful and terrible, and strong exceedingly, with great iron teeth, devouring, breaking in pieces, stamping the residue with its feet, and ten-horned, with an eleventh horn springing up among the ten, having eyes like a man, and a look more stout than his fellows, and a mouth speaking great things and blasphemies, making war with the saints and prevailing against them, until the Ancient of days came, and the beast was slain, when the kingdom and dominion under the whole heaven was given to "the saints of the Most High."

Such is the prophetic vision of the world's history, from the time of Nebuchadnezzar, twenty-five centuries ago, to the approaching advent and kingdom of the Son of Man.

The first of these beasts is interpreted as representing the Babylonian kingdom: "Thou art that head of gold" (Dan. ii.). The second and third of these wild beasts are further set forth in the 8th chapter of Daniel, under analogous forms; the empire represented by a bear raising itself up on one side, is symbolized in that chapter by a ram which had two horns, one higher than the other, the higher coming up last; while the kingdom represented by the leopard with four wings is there set forth by the rough he-goat with one great horn between his eyes, which being broken, four notable horns spring up in its place towards the four winds of heaven. The angel thus interprets these symbols to the prophet, "The ram which thou sawest having two horns are the kings of Media and Persia, and the rough he-goat is the king of Grecia, and the great horn that is between his eyes is the first king. Now that being broken, whereas four stood up for it, four kings shall stand up out of the nation, but not in his power." The prophetic reference here is evidently to Alexander the Great and his successors. It is indisputable that the Medo-Persian and Grecian kingdoms succeeded the Babylonian; and as the first king is interpreted to be the Babylonian, while the ram and the he-goat are interpreted to mean the Medo-Persian and Grecian kingdoms, it is plain that the fourth wild beast must represent the Roman Empire. In the book of Daniel the fourth wild beast is ten-horned, and in the Apocalypse it is the same. The drama in the latter book is mainly connected with the history of the fourth empire in its Pagan and Papal forms. The Roman Empire is presented to us in the Apocalypse in three principal stages: (1) as a great red dragon, seven-headed and ten-horned, its heads crowned (ch. xii.). These heads are declared to be successive (ch. xvii.). (2) It is next represented as a combination of the leopard,

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bear, and lion, having seven heads and ten horns, the horns being crowned—evidently a later stage in the history (ch. xiii.). And (3) lastly, it is seen as a scarlet-coloured beast, full of names of blasphemy, having seven heads and ten horns, and carrying the woman, Babylon the Great, drunken with the blood of the saints, and the blood of the martyrs of Jesus (ch. xvii.). No crowns are seen in this latter case, either upon the heads or the horns of the symbolic wild beast.[1]

In antithesis to these four wild beasts on earth are the four living creatures in heaven. The prophet Ezekiel beheld them in vision, in the time of the Babylonian Empire, while the Apostle John also saw them in vision at the time of the zenith of Roman power. Of these four living creatures, the first was like a lion, the second like an ox, the third had the face of a man, and the fourth the form of a flying eagle, which had six wings. "And they were full of eyes within" (displaying thus symbolically greater intelligence than even that horn of the fourth empire that had eyes as a man). "And they rest not day and night, saying, Holy, holy, holy, Lord God Almighty; which was, and is, and is to come."

As the Lamb looses the four first seals, the four living creatures cry in turn "Come." Under these seals go forth in succession four horses, white, red, black, and pale. So had the prophet Zechariah seen the four chariots with four kinds of horses: in the first chariot red, in the second black, in the third white, and in the fourth chariot, grisled and bay horses. Thus also the same prophet saw in vision four horns representing the Gentile powers which scattered Judah, Israel, and Jerusalem, and also four carpenters, which cut them off. "Then said I, What come these to do? And he spake, saying, These are the horns which have scattered Judah, so that nô man did lift up his head; but these are come to fray them, to cast out the horns of the Gentiles which lifted up their horn over the land of Judah to scatter it" (Zech. i. 21).

Lastly, the fourfold form is recognized in prophecy as attaching to external nature; thus we read of the four quarters of the earth, the four winds of heaven, the four spirits of the heavens, the four angels holding the four winds of heaven, etc.

The passages we have quoted confirm the conclusion that while in Scripture trine, or three-fold numbers are associated with the Divine Nature, and with sacred objects, rites, ceremonies, times and seasons, fourfold numbers or measures are connected with creature forms.

3. THE COMBINATION OF THE FOURFOLD WITH THE THREEFOLD IN THE SEVENFOLD. This combination is clearly seen in the week of Creation, in which the first four

[1] For an interpretation of these symbols we refer the reader to "The Approaching End of the Age."

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days, or periods, were employed in forming and perfecting the *sphere*, and the remaining three in the creation of living creatures, including animals and man, and the occurrence of the Sabbatic rest. Similarly in the Apocalyptic order the first four seals, the first four trumpets, and the first four vials, are clearly separated from the last three seals, the last three trumpets, and the last three vials. The fourfold measures, in each case, precede the threefold, just as in the creation order, and are associated with *the fourfold sphere*, as the four horses, the four winds, the four judgments on earth, sea, rivers, and the symbolic celestial luminaries. The three woe trumpets not only succeed but are broadly separated from the trumpets of the four winds. One order marks the Bible from its first page to its last. The sequence of fourfold and threefold periods, and of sixfold followed by the seventh, or sabbatic, is in harmony with the revealed principle of the sequence existing in the order of the Natural and Spiritual. "That was *not first* which is Spiritual, but that which is Natural; and *afterwards* that which is Spiritual."

4. USE OF THE NUMBER SEVEN IN SCRIPTURE. In the Sanctuary 7 lamps were kept continually burning on the 7-branched candlestick. Zechariah saw in vision a golden candlestick with 7 lamps, and 7 pipes to the 7 lamps. In the book of Revelation 7 golden candlesticks represent the 7 churches, and 7 stars the angels of those churches.

At the beginning of the months there were offered 7 lambs in sacrifice. On the 7 days of the Passover week 7 lambs were offered daily, 49 in all. On the day of Firstfruits, or Pentecost, 7 lambs were sacrificed; at the feast of Trumpets, 7 lambs; on the Day of Atonement, 7 lambs; and during the feast of Tabernacles, 14 lambs each day for the first 7 days of the feast, and 7 lambs on the 8th, the last great day of the feast. During the feast of Tabernacles 70 bullocks were offered on the first 7 days in the following order: 1st day, 13; 2nd day, 12; 3rd day, 11; 4th day, 10; 5th day, 9; 6th day, 8; 7th day, 7; 70 in all, and on the 8th day, 1 (Num. xxviii., xxix.).

The leper to be cleansed from his leprosy was sprinkled with blood 7

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times (Lev. xiv. 7), and the oil was "sprinkled seven times before the Lord." On the great Day of Atonement, blood was sprinkled before the Mercy seat 7 times; it was also sprinkled on the altar 7 times (Lev. xvi.).

Cain was to be avenged 7 fold, and Lamech 70 and 7 fold; Noah took into the ark clean beasts by sevens. Job says: In 7 troubles no evil shall touch thee; Joseph interpreted the dreams of Pharaoh relating to the 7 ears of corn and the 7 kine; Moses says God would chastise Israel in case of disobedience 7 times, and again, they shall go out before their enemies one way and flee 7 ways. Joshua, in the capture of Jericho, compassed the city for 7 days, and on the 7th day 7 times; 7 priests bore before the Ark 7 trumpets of rams' horns. Elisha tells Naaman to wash in Jordan 7 times; Samson was bound with 7 green withs, and then shorn of the 7 locks of his head; Hannah says in her song of praise, that the barren woman hath borne 7; Jeremiah says of the desolations of Jerusalem, she that hath borne 7 languisheth; Solomon says the slothful man thinks himself wiser than 7 men that can give a reason; and that wisdom hews out her 7 pillars. The dissembler has 7 abominations in his heart, and 7 things are an abomination to the Lord. David says, 7 times a day do I praise Thee; and, the word of God is like silver purified 7 times. Isaiah says, The light of the sun shall yet be 7 fold, as the light of 7 days; Micah tells us that on the foundation stone of the temple were to be engraved 7 eyes; Peter asks our Lord whether he ought to forgive sins 7 times, and receives the answer that he should forgive 70 times 7; the apostles appointed 7 men of honest report, and full of the Holy Ghost and wisdom, to attend to the daily ministration in Jerusalem. John was commissioned to convey Divine messages to the 7 churches; he saw 7 golden candlesticks before the throne, and 7 spirits. The Lamb which he beholds has 7 horns and 7 eyes, and opens the 7 sealed book; 7 angels stand before God, and to them are given 7 trumpets; 7 thunders utter their voices; in the earthquake are slain 7 thousand; a wild beast having 7 heads rises out of the sea; 7 angels with 7 golden vials, having the 7 last plagues, issue from the temple. In harmony with the 7 heads of the wild beast are 7 mountains and 7 kings. The apocalyptic drama includes the opening of 7 seals, the sounding of 7 trumpets, and the pouring out of 7 vials.

5. USE OF THE NUMBER TWELVE IN SCRIPTURE. Twelve and seven are alike in their numerical elements. As 3 added to 4 makes 7, so 3 multiplied by 4 makes 12. In the Tabernacle the seven-branched candlestick and the twelve loaves of shewbread were placed on opposite sides of the same sanctuary, without the veil. The number 12 is prominently

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connected both with the Jewish nation and the Christian Church.

The sons of Jacob and the tribes of Israel were 12. At the Elim halting-place, in the Wilderness, were 12 wells of water; Moses built 12 pillars according to the 12 tribes of Israel; 12 loaves of shewbread were presented in the Tabernacle. The High Priest bore the names of the 12 tribes of Israel engraved on the 12 stones of the breastplate; the 12 princes of Israel brought 12 oxen, 12 pitchers, 12 silver bowls, etc. Moses took 12 rods, according to the tribes; 12 men representing the tribes searched the Land of Promise, and Joshua commanded 12 men representing the 12 tribes of Israel to take 12 stones from the place where the priests who bore the Ark stood on dry ground in the midst of Jordan, and to carry them to the place where the people lodged after the passage of the river, and also to set up 12 stones in the midst of Jordan as a memorial. Elijah took 12 stones "according to the number of the tribes of Jacob, unto whom the word of the Lord came, saying, Israel shall be thy name," and with the stones he built an altar in the name of the Lord. Solomon placed 12 officers over Israel; the sea in the Temple stood on 12 oxen. The Ezekiel altar was 12 cubits long and 12 broad. In the miracle of the multiplying of the loaves they took up of the fragments 12 baskets full. The Apostle Paul speaks of "our 12 tribes, instantly serving God day and night," while the Apostle James addresses himself to "the 12 tribes scattered abroad." In founding the Christian Church, which was, so to speak, a new Israel, our Lord chose 12 apostles, who are frequently called, in consequence, "the twelve." "Have not I chosen you twelve?" "Then came the twelve and said unto Him;" "the twelve were with Him." "In the evening He cometh with the twelve." "He sat down and called the twelve." "He took again the twelve." Our Lord promised to His apostles that they should sit on 12 thrones judging the 12 tribes of Israel. When betrayed into the hands of His enemies, and about to be forsaken by His apostles, our Lord said to Peter, "Thinkest thou that I cannot now pray to My Father, and He shall presently give Me more than 12 legions of angels?" The symbolical sun-clothed woman in the Apocalypse has on her head a crown of 12 stars. The new Jerusalem has 12 gates, and at the gates 12 angels, and on the 12 gates are written the names of the 12 tribes of Israel. The city has also 12 foundations, and in them are the names of the 12 apostles of the Lamb. The 12 gates are 12 pearls, while the tree of life in the midst of the city bears 12 manner of fruits. Of each of the 12 tribes of Israel there are sealed 12 thousand. The new Jerusalem is foursquare, each side measuring 12 thousand furlongs. The redeemed on Mount Zion are 12 times 12 thousand in number.

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6. FIVEFOLD AND TENFOLD NUMBERS. The numerical system employed in the Bible is decimal in character. As such it is evidently founded on Nature. The word digits, in its Latin signification, is a witness to the natural origin of the system, as that word means equally fingers and arithmetical figures. The decimal division of numbers can be traced back to antediluvian times. The number of the Patriarchs from Adam to Noah was ten. The measures of the Ark are decimal: three tens, five tens, and three hundreds of cubits, were its height, breadth, and length. Four times ten days and nights the rain descended; and the flood lasted a hundred and half a hundred days. Abraham, when interceding on behalf of Sodom, besought God to spare the city if there were fifty righteous found therein; he afterwards lowers the number to forty-five, and then to forty, thirty, and ten, and stops at that figure.

Ten is five doubled. The ten commandments were written on two tables of the law. The brazen altar measured five cubits in each direction, and the breadth of the Tabernacle was double this. The measure of the Most Holy Place, or innermost sanctuary, was that of a perfect cube, ten cubits in length, ten in breadth, and ten in height. Of the ten virgins in the parable representing the Church, five were wise and five foolish.

In the Five Empires of prophecy, *four Secular empires are followed by one Sacred in character.* As four and three, or seven, so four and one, or five, are connected with the revealed sequence of the natural and spiritual, the human and the Divine. We have in this fact a clue to the position occupied by fivefold numbers, in the Natural system and the Revealed.

The following are some further instances of the use of decimal measures in the Bible:—

The plagues of Egypt were 10 in number. The Tabernacle was thrice 10 cubits in length. The breadth of the court was 5 times 10 cubits, and

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its length 10 times 10 cubits. The boards of the Tabernacle were 10 cubits in length, and the bars running through them to hold them together were 5 on one side and 5 on the other. The curtains of the Tabernacle were 10 in number, being coupled together, 5 and 5. The loops in each curtain for the coupling, were 50, and corresponding with these were 50 taches of brass. The 10th deal of flour was a measure of frequent recurrence in the service of the Tabernacle. The Israelites devoted to God, according to the Law, the 10th part of their possessions; thus Abraham gave a 10th part to Melchizedek. The Jews tempted God in the wilderness 10 times. Solomon made 10 lavers, 10 candlesticks, and 10 tables for the Temple; and the molten sea measured 10 cubits from brim to brim, and was 5 cubits in height. The altar measured 20 cubits in length, 20 cubits in breadth, and 10 in height. The Holy of Holies in the Temple of Solomon was 20 cubits in length, and 20 in breadth, and the wings of the cherubim were 20 cubits in length, reaching from wall to wall. Our Lord compares His disciples to the 10 servants of a nobleman who went into a far country to receive for himself a kingdom, and to return, and to whom he delivered 10 pounds, saying, "Occupy till I come." To the faithful servant whose pound gained other 10 pounds, his master says, "Have thou authority over 10 cities."

7. PALINGENETIC NUMBERS. As the numbers 7, 10, and 12, in their Scripture use, denote completeness, so 7 + 1, 10 + 1, and 12 + 1, or 8, 11, and 13, indicate recommencement, renovation, or the introduction of a new order of things, and may be called palingenetic numbers.

The number 8 is linked in the Abrahamic covenant with the ordinance of circumcision, which was observed by divine direction on the eighth day, and set forth the excision of the old nature accompanying regeneration, according to the words, "in whom ye are circumcised with the circumcision made without hands, *in putting off the body of the sins of the flesh* by the circumcision of Christ."[1] The presentation of the solitary wave sheaf, the *firstfruits* of the barley harvest, on the 16th of Abib, or Nisan, fell on "*the morrow after the Sabbath*" following the Passover (Lev. xxiii. 11). The Sabbath, in this case, was simply the first day of unleavened

[1] Col. ii. 11.

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bread, or 15th of Nisan, a day on which all "servile work" was prohibited (Lev. xxiii. 7). The 15th of Nisan might happen on any day of the week, and coincided periodically with the Jewish Sabbath, which was in such cases a "high day," or day of rest of double importance. On "the morrow" after the 15th of Nisan the single sheaf of firstfruits was presented. Thus were annually typified for sixteen centuries both the fact and time of OUR LORD'S RESURRECTION, which was accomplished on the morrow after such a doubly marked Sabbath; or on the eighth day, the *first of a new week.*

On the first day of the week God created terrestrial light. On the first day of the week the Son of God rose from the dead as the Light and Life of the world. On the first day of the week the Spirit of God descended upon the Church in quickening and illuminating power. These great events, which harmonised in character, harmonised also in their chronology. While the Jewish people for more than three thousand years have kept the seventh day of the week as their Sabbath, the Christian Church for nearly two thousand years has observed the first day of the week as the day of sacred rest and worship. Side by side still remain, century after century, these two great bodies before the world, witnessing, the one to the Sabbath of the old creation order, and the other to the Lord's day of the new!

In harmony with the association of eightfold numbers with revival or re-beginning is the fact that the revived head of the wild beast, symbolising in the Apocalypse the Roman Empire, is its eighth head. John beheld the seventh head of the Roman wild beast "wounded to death," and subsequently saw the deadly wound "healed." The seventh secular head, according to the prophecy, is slain, and afterwards revived in an eighth head, which combines in itself both secular and spiritual powers. The eighth head is spoken of as in a sense "of the seven," since it belongs to the historic order of Rome's rulers; but in its spiritual character and lofty pretensions it stands alone. Slain in one form and raised in another, according to the language of the prophecy it "was, and is not, and yet is." It is interesting to observe the identity of the *eighth*

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head of the Roman wild beast in the Apocalypse with the *eleventh*, or "little horn" of the same symbolic beast in the prophecies of Daniel. In each case the position, character, words, deeds, duration, and doom are the same. The numbers 8 and 11 are harmonious, as indicating a distinct and new order. The seven heads in the one case, and the ten horns in the other, are complete. The eighth head and the eleventh horn are new and separate from the rest, and represent the same power—a power which has long been recognised by historic interpreters of prophecy as that of the Papacy.

The number 13 (12 + 1) is connected both in the Old Testament and in the New with the call of the Gentiles into the kingdom of God, or the introduction of that new order of things which has taken place through the advent of Christ, and the mission of His Spirit.

Paul, the great Apostle of the Gentiles, was a thirteenth apostle. He was not of "the twelve" who accompanied our Lord in His earthly ministry, and were appointed to be the witnesses of His resurrection, but was "born out of due time." His association, from the moment of his call, was with the ascended and glorified Redeemer. The tribes of Israel, like the first apostles of Christ, were twelve in number, but the multiplication of Joseph—who was connected by marriage and otherwise with the Gentiles, and made "lord of all Egypt"—into the two tribes of Ephraim and Manasseh, raised the number of the tribes to thirteen. Upon Joseph and his seed descended special blessings, "above the blessings" of his "progenitors," blessings of a universal aspect, "unto the utmost bound of the everlasting hills," "on the crown of the head of him that was separate from his brethren."[1]

The 24 elders in the Apocalypse (12 + 12) are apparently representatives of the Jewish and Christian bodies united in the kingdom of God. Thus, in the new Jerusalem, while the 12 gates bear the names of the 12 tribes of Israel, on the 12 foundations are engraved the names of the 12 apostles of the Lamb.

[1] Gen. xlix. 26.

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(II.) Analogy in Revealed Times.

The law of Analogy which prevails in Revelation regulates its Times and Seasons. That law, as to its chronological aspect, may be expressed in the following words:—ANALOGOUS CHANGES ARE ACCOMPLISHED IN ANALOGOUS TIMES.

A striking illustration of the prevalence of this law is seen in the *system of weeks* controlling the entire order of Revealed Chronology. In this system the same septenary Time form recurs throughout, though varied as to its scale of magnitude according to the special character of the changes, to whose chronological measurement it is applied.

1. The work of Creation and that of Redemption are connected by evident analogies. In both the progress is from darkness to light, and from chaos to the Image of God. "God, who commanded the light to shine out of darkness, hath shined in our hearts, to give the light of the knowledge of the glory of God in the face of Jesus Christ."[1] In both there is a series of steps, an ordered progress. In both there is the ultimate dominion of man, formed in the Divine image, over the works of God. "Thou madest him to have dominion over the works of Thy hands; Thou hast put all things under his feet."[2] In both the issue is Sabbatic. The *Changes* in the one and in the other are analogous, and the *Times* in which they are accomplished are analogous. The septenary time order followed in Creation is equally followed in Redemption. The analogous Changes are accomplished in analogous Times.

2. The various acts and dispensations in the work of Redemption are analogous. Earlier redemption acts frequently bear to later the relation of Type to Antitype. Thus the deliverance of the family of Noah from the Flood, and

[1] 2 Cor. iv. 6. [2] Ps. viii. 6.

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of Israel from Egypt, are types, according to Scripture, of the redemption of the Church by our Lord Jesus Christ. And the Times in which the redemption acts are accomplished are analogous. The series of revealed Redemption Times, Patriarchal, Jewish and Christian, is one of WEEKS on various scales. One septenary ratio regulates the whole. The analogous changes are accomplished in analogous Times.

3. There is an analogy between the work of the creature, made in the Divine image, and the work of the Creator. Man is called to be an imitator of God. "Be ye imitators of God," μιμηταὶ τοῦ Θεοῦ (Eph. v. 1). As God wrought and rested, in a sense—for in truth He ever works according to our Lord's declaration: "My Father worketh hitherto, and I work"—so man is called to toil and rest (yet ever to labour), entering both into the work and into the rest of God. And the times marked out in the Divine law for human toil and rest are analogous with those in creative operations.

"Six days shalt thou labour, and do all thy work: but the seventh day is the Sabbath of the Lord thy God: in it thou shalt not do any work, thou, nor thy son, nor thy daughter, nor thy manservant, nor thy maidservant, nor thy cattle, nor the stranger that is within thy gates: for in six days the Lord made heaven and earth, the sea, and all that in them is, and rested the seventh day: wherefore the Lord blessed the seventh day, and hallowed it."[1]

In six time periods, whatever their length, the creation work of Genesis i. was accomplished. Similarly six time periods, whether of days, or months, or years, or decades of years, were to limit human toil. Six days man was to labour for daily bread; six months to toil from spring to harvest; six years to till the soil; sixty years to serve (1 Tim. v. 9); but the seventh day, the seventh month, the seventh year, the seventh decade, were to bring repose. One law links the work of man with that of his Maker. Analogous changes are accomplished in analogous times.

[1] Exod. xx. 9–11.

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4. The analogy of Events and Times connecting the work of CREATION with that of REDEMPTION confirms the conclusion that "Redemption is no after-thought, rendered necessary by the Fall, but, on the contrary, *part of a general scheme, for which provision had been made from the beginning;* so that the Divine Man, through whom the work of restoration has been effected, was in reality, in reference to the purposes of the Eternal, what He is designated in the remarkable text, '*The Lamb slain from the foundation of the world,*'"[1] *τοῦ ἀρνίου τοῦ ἐσφαγμένου ἀπὸ καταβολῆς κόσμου* (Rev. xiii. 8).

5. The law prominent in Nature of the variation of typical forms according to special ends regulates the use of weeks on different scales of magnitude in Revelation, and links together the Historic, Levitical, and Prophetic Times in the sacred volume as a harmonious whole, comprehensively adjusted to the material and moral order of the world.

Five forms of weeks were employed under the law of Moses, adjusted to individual and national interests :—

(i.) The week of days (Exod. xx.).
(ii.) The week of weeks (Lev. xxiii.).
(iii.) The week of months (Lev. xxiii.).
(iv.) The week of years (Lev. xxv.).
(v.) The week of weeks of years (Lev. xxv.).

(i.) The week of Days.

For three thousand five hundred years the Jews as a nation have observed the week of days, resting every Sabbath from secular toils, according to Divine command.

Seven days was the period appointed under the Levitical law for many of those consecrations which were the impartation of ceremonial or typical perfection. The process of consecrating Aaron and his sons to the work of the priesthood, that they might minister before the Lord for Israel, lasted seven days (Exod. xxix. 35). That also of sanctifying the

[1] "Footprints of the Creator." Hugh Miller, p. 290.

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altar, that it might become an altar most holy, imparting sanctity to all that touched it, lasted similarly seven days (Exod. xxix. 37).

Thus also, the period of the duration of ceremonial uncleanness was, in a number of cases, limited by seven days, at the close of which ceremonial purity was restored. On the birth of a male child, for instance, a woman was considered unclean for seven days (Lev. xii. 2); nor could the child, during that week, be circumcised. Circumcision could not take place till the eighth day.

The firstborn of cattle, devoted to God, were not to be offered during the first seven days. "Seven days shall it be with its dam, and on the eighth day thou shalt give it to Me" (Exod. xxii. 30); "On the eighth day and thenceforth it shall be accepted for an offering made by fire unto the Lord" (Lev. xxii. 27).

Various other ceremonial observances, of a similar nature were enacted in Israel. Defilement from a running issue, or from an issue of blood, lasted seven days (Lev. xv. 13–19). The suspected leper was to be shut up seven days, and even after he was pronounced clean, he was still to tarry abroad out of his tent seven days (Lev. xiii. 14). Miriam, on account of her leprosy, was shut out of the camp seven days (Num. xii. 14). The house, or the garment infected with the plague of leprosy, was similarly to be shut up seven days.

Defilement by contact with the dead also endured seven days; that is, the ceremonial purity forfeited by this contact could not be restored in less than seven days (Num. xix. 11). Thus, the purification of the men, after the slaughter of the Midianites, lasted seven days (Num. xxxi. 19).

It is much insisted on in the law that the feast of unleavened bread should last seven days. Under pain of death all leaven was, during this period, to be put away from Jewish dwellings (Exod. xii.). The feast of tabernacles also lasted seven days: "Ye shall rejoice before the Lord your God seven days, and ye shall keep it a feast unto the Lord, seven days in the year; it shall be a statute for ever in your generations: ye shall celebrate it in the seventh month; ye shall dwell in booths seven days" (Lev. xxiii. 36, 39).

On the occasion of the siege of Jericho, seven priests bearing seven trumpets, compassed the city with the men of war, for seven days, and on the seventh day they went round it seven times, when the city fell.

The week, with its concluding Sabbath, is therefore deeply engraven in a variety of ways on the whole Jewish ritual and history. Nor on Jewish history alone. Although in the Christian dispensation the eighth day, or first day of a new week, is substituted for the creation Sabbath, indicating that rest is to be found only in a new creation, only in resurrec-

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tion,—yet still the weekly division of time, and the weekly day of holy rest, continue, witnessing as ever to the rest that remaineth for the people of God. For, like the Lord's supper, which shows forth His death till He come, the Sabbath and the Lord's day which has taken its place glance both backward and onward. The first day of the week recalls the glad morning of the resurrection, the completion of the redeeming work of Christ (just as the Sabbath recalled the conclusion of the creation work of God), and it foretells the remaining rest, when they that are Christ's shall rise at His coming. Thus we may say, that three hundred thousand earthly Sabbaths line the road that lies behind the people of God, pointing with out-stretched hand, like so many guide-posts, in the same direction, and agreeing with overwhelming unanimity in their testimony to the blessed fact, that "there remaineth a Sabbatism" for the people of God.

(ii.) The week of Weeks.

Next in order to the week of days came the week of weeks. This was a period appointed to elapse between the first two of the great annual gatherings of the Jewish sacred year, Passover and Pentecost. "And ye shall count unto you from the morrow after the sabbath, from the day that ye brought the sheaf of the wave offering; seven sabbaths shall be complete. Even unto the morrow after the seventh sabbath shall ye number fifty days, and ye shall offer a new meat offering unto the Lord" (Lev. xxiii. 15).

Thus, in every Jewish year there occurred not only a series of weeks of days, each with its concluding sabbath, but a week of weeks, with its closing Pentecostal celebrations, full of hidden hopes of resurrection experiences.

(iii.) The week of Months.

The entire series of the feasts of the Lord, ordained in Leviticus, is comprised within the first seven months of the year. The sacred portion of the Jewish year, therefore, or its

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complete calendar of divinely ordained religious ceremonies, *prefiguring the history of redemption*, occupied a week of months. It commenced with the month Abib or Nisan, on the fourteenth day of which the Exodus took place, in memory of which the annual feast of Passover was instituted. There followed, each in its appointed season, the feast of Unleavened bread, and the First-fruit sheaf, the feast of Weeks or Pentecost, the feast of Trumpets, the great day of Atonement, and the feast of Tabernacles. This last was held in the seventh month, and with it closed for the year the special "feasts of the Lord." Thus the period marked off for holy convocations, from the Jewish year, was septiform in character; a week whose days were months contained, by Divine direction, the observances of Israel's ecclesiastical year; while the feasts themselves, and the order in which they occurred, had undoubted reference to anti-typical events, on the scale of ages.

(iv.) The week of Years.

It was the will of God that not only the people but the land of Israel should keep sabbath. "The Lord spake unto Moses in Mount Sinai, saying, Speak unto the children of Israel, and say unto them, When ye come into the land which I give unto you, then shall the land keep a sabbath unto the Lord. Six years thou shalt sow thy field, and six years thou shalt prune thy vineyard, and gather in the fruit thereof; but in the seventh year shall be a sabbath of rest unto the land, a sabbath for the Lord: thou shalt neither sow thy field, nor prune thy vineyard. That which groweth of its own accord of thy harvest thou shalt not reap, neither gather the grapes of thy vine undressed: for it is a year of rest unto the land" (Lev. xxv. 1–5). The Hebrew servant, similarly, was to serve six years, and go out free in the seventh (Exod. xxi. 2).

The period thus marked off had exactly the same character

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as the week with its six days of toil and seventh of rest; it is simply the week on the scale of years. And it is worthy of notice that the observance of the ordinances respecting the land during the sabbatic years was possible only by means of a stupendous miracle, to be repeated every seven years. "If ye shall say, What shall we eat the seventh year? behold, we shall not sow nor gather in our increase: then I will command My blessing upon you in the sixth year, and it shall bring forth fruit for three years" (Lev. xxv. 20, 21). Here was a law perfectly harmonious, as we have seen, and shall yet see more fully, with the order of sacred seasons observed by the Jews; a law in which there was nothing foreign to their whole system, but which was on the contrary an integral part of it, and yet it was made to depend, for the possibility of its fulfilment, upon a special periodical interposition of Divine power, as wide in its range as the necessities of an entire nation. No merely human legislation would ever have originated such a law, on account of its incapacity to provide the conditions needful for its observance. This miracle in the land was, on the scale of years, what the doubling of the manna, in the wilderness, was on the scale of days; a miraculous arrangement, to render possible the keeping of the prescribed sabbath. There, the gift of manna was doubled every sixth day; while in the land of promise the produce was trebled every sixth year, the object in each case being to secure the sabbath rest.

(v.) The week of Weeks of Years.

The largest week ordained in the Mosaic ritual was the week of weeks of years, the period including, therefore, seven sabbatic years, with their intervening years of toil; forty-nine years.

"Thou shalt number seven sabbaths of years unto thee, seven times seven years; and the space of the seven sabbaths of years shall be unto thee forty and nine years. Then shalt thou cause the trumpet of the jubilee to sound on the tenth day of the seventh month, in the day of

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atonement shall ye make the trumpet sound throughout all your land. And ye shall hallow the fiftieth year, and proclaim liberty throughout all the land unto all the inhabitants thereof: it shall be a jubilee unto you; and ye shall return every man unto his possession, and ye shall return every man unto his family. A jubilee shall that fiftieth year be unto you: ye shall not sow, neither reap that which groweth of itself in it, nor gather the grapes in it of thy vine undressed. For it is the jubilee; it shall be holy unto you; ye shall eat the increase thereof out of the field. In the year of this jubilee ye shall return every man unto his possession" (Lev. xxv. 8–13).

"This larger week is perfectly harmonious in character with all the previous ones; during its earlier portion, bondage, debt, and poverty lasted, at its close they passed away and disappeared. The jubilee was a year of rest and joy and liberty, that foreshadowed more than any preceding sabbath the full and varied blessedness of the rest that remaineth for the people of God. Once at least in every ordinary life-time would this great prophetic ordinance arrive, laden with its wealth of joy and peace, and glowing with its beams of hope and promise."[1]

The Prophetic Times.

The Levitical and Prophetic Times form a continuous septenary series. The range of the Levitical Times is from seven days to seven times seven years. The range of the Prophetic Times is from seventy years to seven millenaries.

(vi.) The week of Decades.

The prophetic period of seventy years is one which measures the ordinary life of man. "The days of our years are threescore years and ten, and if by reason of strength they be fourscore years, yet is their strength labour and sorrow, for it is soon cut off, and we fly away."[2] The harmony here between the time order of Nature and that of Revelation is evident.

[1] "Approaching End of the Age," pp. 273–278. [2] Ps. xc. 10.

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The period of seventy years measured the duration of the captivity of Judah in Babylon.

"It was predicted by Jeremiah, that in consequence of their inveterate idolatry Israel should be carried captive by Nebuchadnezzar": "The whole land shall be a desolation, and an astonishment, and these nations shall serve the king of Babylon seventy years" (Jer. xxv. 11). And subsequently a second time the same limit was assigned: "For thus saith the Lord, After seventy years be accomplished at Babylon, I will visit you, and perform My good word toward you, in causing you to return to this place" (Jer. xxix. 10). A dark and terrible week to Judah were those seven decades; the daughters of Israel hung their harps upon the willows by the rivers of Babylon, and wept as they remembered Zion. The desolate land enjoyed her sabbaths, while her sons languished in exile. But this week also closed with restoration and liberty, when the Lord turned again the captivity of Zion, and her children felt like those that dream, as they sang, "The Lord hath done great things for us, whereof we are glad."

(vii.) The week of Weeks of Decades.

It was towards the close of this long and dark week of the captivity that there was revealed to Daniel a still larger week —a week each of whose days was to equal the captivity week, a week of seven times "seventy years," or "seventy weeks" of years—a period of 490 years. This may be termed the restoration week; it was the time that elapsed between Artaxerxes' decree to restore and to build Jerusalem, and the days of "Messiah the Prince"; indeed, it was revealed as measuring the interval. "Seventy weeks are determined upon thy people and upon thy holy city, to finish the transgression, and to make an end of sins, and to make reconciliation for iniquity, and to bring in everlasting righteousness,

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and to seal up the vision and prophecy, and to anoint the Most Holy."

Had Israel known the day of her visitation, and received her Messiah when He appeared, what a glorious sabbath would have closed this week! Its seventh day did actually include the incarnation and life of the Lord Jesus Christ, and,—since, when He came unto His own, His own received Him not,—it included also His atoning death, His triumphant resurrection, and the descent of the Holy Ghost; the rejection of Israel, the destruction of their temple, and the first gathering-in of the Gentiles. So that, even on this scale of centuries, God has adhered to the law we have noted above, and brought in the day of the greatest blessings the world has ever known as the seventh stage of a course of history. The period is, however, designated as "seventy weeks" rather than as one week—and it is, therefore, still more conspicuously an instance of the prevalence even in long stretches of history of the law of weeks.

(viii.) The week of Years of Years.

Scripture presents us—in symbolic prophecy—with a week on a scale of greater magnitude than any of these, in the "seven times" of Daniel. It is a week of years, whose days are years, in other words a week each of whose days consists of 360 solar years. Its second half is frequently mentioned in symbolic prophecy, under various designations, which all indicate one and the same period, 1260 natural years. This gigantic week includes the entire "Times of the Gentiles," the times during which supreme power on earth is by God committed to Gentile instead of Jewish rulers. It dates from the captivities, and is still running its course, though rapidly nearing its close.[1]

[1] See Author's work "Light for the Last Days."

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(ix.) The week of Millenaries.

And all these various weeks are included in a sublime week of millenaries, which is clearly intimated, if not distinctly revealed, in the Word of God. In the closing vision of the Apocalypse, the glorious reign of Christ and His saints, which is to be the world's real sabbath, and Israel's real jubilee, the antitype and fulfilment of the types and shadows of the all-embracing sabbatic law we have traced through Scripture—the great sabbatism—is six times over spoken of as a period of "a thousand years." This millennial age being the true sabbath of the world, must be regarded as a seventh day—the seventh day of a week, whose six preceding unsabbatic days were of equal duration with this its sabbath. So that the last page of the Bible shows that the creation week, whose occurrences are narrated on its first page, was the germ and type of the world's chronology, and foreshadowed the whole course of time; that the sabbath of Paradise pointed to a great sabbath of a thousand years, with which God—to whom a thousand years are as one day—has from the beginning purposed to bless mankind; the seventh day of the great week of time, which is to introduce the eternal state—the new creation.[1]

Palingenetic Times.

The law of analogy, according to which analogous changes are accomplished in analogous times, strikingly applies to the Palingenetic periods of the Old and New Testaments.

Circumcision, as we have seen, was typical of the "putting off the body of the sins of the flesh,"[2] and was appointed to be the token of the covenant of grace made with Abraham. Four hundred and thirty years before the law was given was this covenant made, a covenant which the law "cannot

[1] "Approaching End of the Age," pp. 243–281. [2] Col. ii. 11.

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disannul, that it should make the promise of none effect."[1] The time appointed for the ordinance of circumcision was the eighth day. "He that is eight days old shall be circumcised among you, every man child in your generations, he that is born in the house, or bought with money of any stranger, which is not of thy seed. He that is born in thy house, and he that is bought with thy money, must needs be circumcised: and My covenant shall be in your flesh for an everlasting covenant."[2] The Jew is born in the Abrahamic house; the Gentile has been bought with money. "Ye are bought with a price."[3] Both must needs be circumcised with "the circumcision made without hands," that "of the heart, in the spirit, and not in the letter, whose praise is not of man, but of God."[4] "We are the circumcision, which worship God in the spirit, and rejoice in Christ Jesus, and have no confidence in the flesh."[5] "For in Christ Jesus neither circumcision availeth anything, nor uncircumcision, but *a new creature*,"[6] animated and characterised by "faith which worketh by love."[7] As, then, the impartation of a new and holy life is connected in the New Testament with the Resurrection of our Lord, which took place on the first day of a new week, the eighth day in relation to the previous week, so the typical ordinance of circumcision, that outward token of participation in the Abrahamic covenant of grace, was appointed to be observed on the eighth day, the first day of the second week in the life of the Jewish child. For four thousand years the Jewish nation has scrupulously kept the letter of this law. How much longer shall it be before it learns to link it with its antitype in the Resurrection of our Lord Jesus Christ? Evermore witnessing to Christ, how long shall it be till it recognises the meaning of its act?

The presentation of the wave sheaf, the *first fruits* of the barley harvest, on the 16th of Abib, or Nisan, took place, as

[1] Gal. iii. 17. [2] Gen. xvii. 12, 13. [3] 1 Cor. vi. 20.
[4] Rom. ii. 29. [5] Phil. iii. 3. [6] Gal. vi. 15. [7] Gal. v. 6.

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we previously stated, on "*the morrow after the sabbath*"; *i.e.*, the morrow after the first day of unleavened bread, on which all "servile work" was prohibited.[1] For sixteen centuries before our Lord rose from the dead, the glorious *fact* of His resurrection as "*the firstfruits of them that slept*,"[2] and the *time* of His resurrection, "*the morrow after the Sabbath*" *following the Passover*, were ceremonially typified and set forth by this annually recurring ordinance. The "wave sheaf" ordinance was not the only Palingenetic type which coincided in its recurrence with the event which it typified, for the Pentecostal ordinance did the same. It was "when the day of Pentecost was fully come"[3] that the Holy Spirit suddenly descended in quickening power upon the Church. This was in a sense the birthday in her spiritual history. And the seven weeks interval which terminated on the Pentecostal day was reckoned, by Divine command, from the day of the presentation of the "wave sheaf," in other words, from the day of our Lord's Resurrection. How gloriously significant! The Holy Spirit was His own promised gift. "Being by the right hand of God exalted, and having received of the Father the promise of the Holy Ghost, He hath shed forth this."[4] The Rock was smitten, and straightway the water gushed forth in the wilderness, and ran as a stream in the desert! And the day of the Spirit's Advent was *the first day of the week*, the fiftieth, or Pentecostal day. Seven weeks, plus the first day of the eighth week, the fiftieth day, is simply an octave period on a larger scale, that of the square of the ordinary week of days. Herein is a notable instance of the analogy of times. The changes or events in question were analogous in character, and their times were analogous.

When to this Pentecostal ordinance, with its transcendently important New Testament fulfilment, we add the *Jubilee* ordi-

[1] Lev. xxiii. 8, 11. [2] 1 Cor. xv. 20. [3] Acts ii. 1. [4] Acts ii. 33.

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nance, we further extend the series of analogous Palingenetic Times. The ratio of the Pentecostal period to the Jubilee period was that of the Solar day to the Solar year. The one fell on the fiftieth day after the wave-sheaf presentation of "first-fruits," the other on the fiftieth year reckoned from the crossing of Jordan. The starting-point in both cases is analogous, for the division or drying up of Jordan by the Ark of the Covenant is an evident type of the resurrection of our Lord. And the terminal events were analogous, for the sounding of the trumpet of liberty on the day of Jubilee (linked as it was with the work of the great Day of Atonement) typified most manifestly the sounding forth of the gospel of liberty which took place with divine effect on the Pentecostal day; typified it as no previous accomplishment could have done, for never till then had the High Priest entered within the veil, "having obtained eternal redemption for us." Here, again, these analogous changes were accomplished in analogous times. The fiftieth day from the wave-sheaf presentation of the first-fruits, and the fiftieth year from the triumphant crossing of the supernaturally divided Jordan, brought their analogous events,—events whose typical significance has not been exhausted by any past fulfilment, but which still point forward to the promised restoration and renovation of the exiled Abrahamic race.

We cannot but connect with the foregoing Palingenetic periods that of the eighth, or final day of the final feast of Tabernacles. "Speak unto the children of Israel, saying, The fifteenth day of this seventh month shall be the feast of Tabernacles for seven days unto the Lord. On the first day shall be an holy convocation; ye shall do no servile work therein. Seven days shall ye offer an offering made by fire unto the Lord: it is a solemn assembly; and ye shall do no servile work therein. In the fifteenth day of the seventh month, when ye have gathered in the fruit of the land, ye shall keep a feast unto the Lord seven days; on the first day

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shall be a sabbath, and *on the eighth day shall be a sabbath.*" This terminal eighth day is that referred to in John vii. 37, in the words, "On the last day, the great day of the feast, Jesus stood and cried, saying, If any man thirst, let him come unto Me and drink. He that believeth on Me, as the Scripture hath said, out of his belly shall flow rivers of living water. But this spake He of the Spirit, which they that believed on Him were to receive: for the Spirit was not yet given; because Jesus was not yet glorified."[1] Thus Judaism, with its septenary chronology, looked forward, in its octave terminal ordinance, to a higher order of things, linked with the advent of Christ, and with the coming and gift of the Holy Ghost. The new order was latent in the types and pledges of the old. The end of the law is the gospel. The resurrection of Christ, the advent of the Spirit, and the going forth from those who drink of that Spirit of rivers of living water, are associated as analogous events by their divinely appointed analogy of Times—an analogy which weaves together the natural type and the spiritual antitype, the predictive past, the actual present, and the promised future, in one inseparable harmonious order of Palingenetic Times and Experiences.

"He that sat upon the Throne said, *Behold I make all things new.* And He said unto me, Write, for these words are true and faithful."[2]

Conspectus of Revealed Times.

The system of times and seasons unfolded in Scripture is controlled by Sabbatic or septenary measures, the law of Analogy, and the Palingenetic principle.

It is a system of analogous weeks, on various scales of magnitude, adjusted to special historic and religious ends;

[1] John vii. 37, R.V. [2] Rev. xxi. 5.

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a system in which a new order of times, latent in the old, is gradually developed and unveiled, contemporaneously with the new order of events to which it belongs.

The series of analogous weeks constituting the Revealed time system exhibits no broken links. No portion is disconnected or isolated, but the various weeks flow on in an uninterrupted stream, the lesser leading to the larger, or contained in the larger; weeks of days succeeding each other without intermission, and contained in weeks of months and years; and these, again, in larger weeks, whose ratio to the lesser is that of the square, that of tenfold increase, or that of year-day proportion.

The first week in the system—that connected with the order of creation—is the root of the whole; while the complex septenary periods of the Apocalypse form the variegated flower springing from the stem.

The periods of Redemption chronology include Patriarchal, Levitical, and Prophetic times (the latter containing both Jewish and Gentile elements), the whole being centred in historic times connected with Messianic or Christian history.

The Patriarchal period, as linked with the Adamic or natural order, is marked by decimal (natural) measures. The number of the antediluvian patriarchs is ten. Their lives were measured by centuries. Thus Adam lived after the birth of Seth exactly eight centuries. Jared, after the birth of Enoch, similarly lived eight centuries; and Enoch, after the birth of Methuselah, three centuries. The age of Noah at the flood was just six centuries; that of Shem, at the birth of Arphaxad, one century, and the remainder of his life, five centuries. The duration of the life of Serug, after the birth of Nahor, was two centuries; while the age of Abraham at the birth of Isaac was exactly one century.

Patriarchal and Messianic chronology are marked respectively by *a fourfold and a threefold division of the century.*

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Twenty-five years is the unit of the former, and thirty-three years of the latter.

The unit of the system of weeks measuring the lives of the patriarchs was 25 years. The life of Abraham consisted of seven such periods. Three times twenty-five years extended from his birth to his call; twenty-five years from his call to the birth of Isaac; and three times twenty-five years from that event to Abraham's death.

The presence of the septenary principle in Patriarchal chronology is further illustrated by the lives of Enoch, Lamech, and Noah. Enoch, the *seventh* from Adam, was translated. The period of his life was remarkable, 365 years, or as many years as there are days in the solar year. The year-day ratio traceable in the law and the prophets here appears in patriarchal times. The translation of Enoch in the days of the patriarchs, of Elijah in Jewish times, and the future translation of "those who are alive and remain to the coming of the Lord" in this Christian age, are analogous events connected with the three great dispensations measuring the course of history.

The age of Lamech, the last of the antediluvian patriarchs, at his death 777 years, presents a triple septenary period, and forms a striking contrast with the triple sixfold 666 of the Apocalypse, connected with the Antichristian power, whose duration terminates with the Second Advent prefigured by the Noahic flood; and suggests a chronological fulfilment of the latter on the scale of centuries. The age of Noah at the flood was sixfold and unsabbatic—600 years—the first year of the seventh century of his existence introduced the new order of things in the new world, when the older world had passed away.

And lastly, in the year of the flood itself, the *seventh day* and the *seventh month* are both prominent. The year of the flood both opened and closed with a seven days' period. Of the former of these we read: "For yet seven days, and I will cause it to rain upon the earth forty days and forty nights"; "and it came to pass after seven days, that the waters were upon the earth"; and of the latter, that when Noah had sent forth the raven, "he stayed yet other seven days" and sent forth the dove, which returned in the evening, bearing "an olive leaf plucked off," a sign that the waters were "abated from off the earth." "And he stayed yet other seven days, and sent forth the dove, which returned not again unto him any more."[1] These periods confirm the antediluvian origin of the week of days.

[1] Gen. vii. 4, 10; viii. 10, 12.

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It is remarkable that "the ark rested in the *seventh month*,"[1] a sabbatic event occurring in a septenary period. If, as seems probable, the year of the flood began in autumn, at or about the time of the autumnal equinox, the 17th day of the 7th month, when the ark rested (14 days + 3 days), must have been on or near the 16th of Nisan (the third after Passover), on which, long centuries later, our Lord rose from the dead.

With the Exodus of Israel began a new order of times. "This month (that of the Exodus) shall be unto you *the beginning of months: it shall be the first month of the year to you.*"[2] The most notable and important fact here is that the institution of the Passover ordinance, and contemporaneous Exodus of Israel from Egypt—the greatest of all the types of Redemption in the Old Testament—were providentially placed in the spring of the year, at or near the time of the vernal equinox, and on the 14th of Abib or Nisan, the date of our Lord's crucifixion.

The times of the three greatest events in the New Testament, *the death of Christ, His resurrection, and the advent of the Spirit*, were annually prefigured in the types of the Levitical calendar for sixteen centuries before their actual occurrence, and have been unwittingly commemorated by the whole Jewish nation in their annual observances, during the eighteen centuries which have elapsed since the founding of Christianity.

The order of the feasts in the Levitical calendar regulated the annual journeyings and assemblings of the Jewish people in relation to the service and worship of God, and consequently controlled, to a large extent, the journeyings of our Lord in the days of His flesh, and especially during the period of His ministry. The Exodus witnessed the first of a series of important Passover celebrations, including the Passover of the Eisodus, or entrance into the Promised Land; the great Passovers in the times of Hezekiah and Josiah,

[1] Gen. viii. 4. [2] Exod. xii. 2.

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associated with national reformation movements; the Post-Captivity Passovers, connected with the going up to Jerusalem both of Ezra and of Nehemiah; and the Passovers in the life of our Lord, coinciding with His first appearance in the temple as a youth among the Jewish doctors; with His cleansing the temple when He cast out the buyers, sellers, and money-changers; with His teachings addressed to Nicodemus on the mysteries of Redemption; with His discourse on the bread of life "which came down from heaven," in which He first taught the necessity of eating His flesh and drinking His blood; with the atoning death of Christ and with the institution of the Lord's Supper, that sacred ordinance in which, for eighteen centuries, the whole Christian Church has continued to commemorate and show forth His death, and the redemption it accomplished, according to the prophetic declaration, "As often as ye eat this bread and drink this cup, ye do show the Lord's death *till He come.*"

The convergence of Levitical and Prophetic times, and their meeting in Christ, and especially in His death, is a witness to the divinity of His mission. The Levitical and Prophetic times form an ascending series, the seven years and forty-nine years of the former being increased tenfold in the 70 and 490 years of the latter. The seven "times" of prophecy are the Levitical week of years, increased according to the year-day scale.

In "seven times," or 2,520 years, the year-day ratio which connects the Levitical week of days with the Levitical week of years (a year for a day) prevails on a higher scale. The year-day ratio is common to the Law and the Prophets, and its employment in the "seventy weeks" of prophecy, fulfilled as 490 years, is a seal on its divinity.

While the "seventy weeks" of prophecy extend to the First Advent, the "seven times" apparently extend to the Second Advent, and include in their course the duration of

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the four great Gentile empires which hold dominion during the period of Jewish depression and desolation.

The prophetic times of the Apocalypse, as revealed after the fall and passing away of the first three Gentile empires, relate to the fourth, or Roman empire, and the subsequent manifestation of the kingdom of God.

While the introductory pre-Messianic portion of the "seven times" contains the seventy years and "seventy weeks" of prophecy—the Captivity and Restoration periods, associated with the history of Israel under the first three empires, those of Babylon, Persia, and Greece—the central and later portions of the "seven times" include the septenary time order of the Apocalypse, connected with the history of the Christian Church under the fourth or Roman empire.

The seven seals, seven trumpets, and seven vials of the Apocalypse present a progressive septiform order of times, harmonious with the system of weeks prevailing in the chronology of the Law and the Prophets. As the year-day ratio employed in the mystical "seventy weeks" and "seven times" of prophecy was adapted to the partial and temporary concealment of their exact measures—measures concerning which it is expressly stated "none of the wicked shall understand"—so the tri-septiform order of the seals, trumpets and vials of the Apocalypse is adjusted to the gradual development of a knowledge of the Divine purposes in relation to the course and duration of the present Christian age.

The prefigurative week connected with the capture of Jericho, on the entrance of the literal Israel into the land of promise, adumbrated the Apocalyptic order relating to the antitypical Israel. During seven days Israel compassed Jericho, and on the seventh day seven times. Thus the seventh Seal contains the order of the seven Trumpets, and the seventh trumpet that of the seven Vials. The seven trumpet blasts in the type and in the prophecy agree; and the fall of Jericho in the one with the fall of Babylon in the other.

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The transition in the Apocalypse from the 1,260 "days," 42 "months," and 3½ "times," relating to the present apostate age, to the plain and simple "thousand years" of the future millennial reign, marks the advance from the kingdom of God in "mystery" to the same in open manifestation.

The repetition of the solemn oath of the revealing angel in the prophecies of Daniel and the Apocalypse, in relation to the terminal times, invests their measures with peculiar and pre-eminent importance. Standing in the one case "upon the waters of the river," and in the other "upon the sea and upon the earth," the cloud-clothed, rainbow-crowned angel, whose face was as the sun, and his feet as pillars of fire—none other than the Angel Jehovah, the Angel of the everlasting Covenant—lifting up "his right hand and his left hand unto heaven," "SWARE BY HIM THAT LIVETH FOR EVER AND EVER," that the scattering of "the power of the holy people" by the predicted desolator should be "for a time, times and an half," when "all these things shall be finished"; and that from the date of the (Reformation) vision of the sixth trumpet, that of the "little book open," to the end, "there should be A TIME no longer" (ὅτι χρόνος οὐκέτι ἔσται), "but in the days of the voice of the seventh angel, when he shall begin to sound, *the Mystery of God should be finished*, as He hath declared unto His servants the prophets."[1] "The speaker is the same, for in each case the context proves decisively that it is no other than the Son of God. The subject is the same; and there are only two passages where the solemnity of an oath is connected with the sacred times. The form of the appeal is the same; only that in Revelation it becomes still more august and full than in the former prophecy. Finally, the substance of the oath corresponds also. The oath in Daniel solemnly announces that events there predicted in the close of his prophecy shall last three

[1] Dan. xii. 7; Rev. x. 6, 7.

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times and a half, and that afterwards *the restoration of Israel will follow.* The present oath, at a later period, resumes the same subject. After the six trumpets have been blown, and the remnant continue stubborn and impenitent, the mighty Angel descends and announces with a solemn oath that not one single *time* remains to run out before the predicted season shall be accomplished, and *the Mystery of the Gentile Church and Israel's rejection shall be completed.*"

"Blessed be the name of God for ever and ever: for wisdom and might are His: and He changeth the times and the seasons: He removeth kings, and setteth up kings: He giveth wisdom unto the wise, and knowledge to them that know understanding: He revealeth the deep and secret things: He knoweth what is in the darkness, and the light dwelleth with Him."[1]

[1] Dan. ii. 20–22.

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(III.) Scientific Basis of the Chronology of the Four Empires.

The preceding section dealt with the Analogy of Times, but not with any particular dates. Before entering on the adjustment of Natural Times to Revealed, it will be necessary to fix some of the leading dates in the chronology of the four empires of Prophecy, and to indicate the probable date of our Lord's Passion.

Astronomical Canon of Ptolemy.[1]

The uncertainty which attaches to remote periods of secular chronology disappears at the date of the accession of Nabonassar, with whose reign the times of the four Gentile empires commence. From this time forward we are able to verify the chronological records of the past; and the dates of ancient history are confirmed by astronomic observations.

The astronomical records of the ancients, by which means we are able to fix with certainty the chronology of the earlier centuries of the "times of the Gentiles," are contained in the "Syntaxis," or "Almagest" of Ptolemy.

In the existence of this invaluable work, and in its preservation as a precious remnant of antiquity, the hand of Providence can clearly be traced. The same Divine care which raised up Herodotus and other Greek historians to carry on the records of the past from the point to which they had been brought by the writings of the prophets at the close of the Babylonish captivity;—the Providence which raised up Josephus, the Jewish historian, at the termination of New Testament history, to record the fulfilment of prophecy in the destruction of Jerusalem,—raised up also Ptolemy in the important interval which extended from Titus to Hadrian,

[1] Abbreviated from the Author's work, "Light for the Last Days."

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that of the completion of Jewish desolation, *to record the chronology of the nine previous centuries*, and to associate it in such a way with the revolutions of the solar system as to permit of the most searching demonstration of its truth.

Ptolemy's great work, the "Almagest," is a treatise on astronomy, setting forth the researches of ancient observers and mathematicians with reference to the position of the stars, the exact length of the year, and the elements of the orbits of the sun, moon, and planets. This work was written in Greek, and subsequently translated into Arabic, Persian, Hebrew, and Latin, etc.; it became the text-book of astronomic knowledge both in the East and in Europe, and retained that high position for about fourteen centuries, or till the time of Copernicus, the birth of modern astronomy, three centuries ago.

The chronological value of the "Almagest" is owing to the fact that it interweaves a series of ancient dates with a series of celestial positions. It contains a complete catalogue of the succession of Babylonian, Persian, Grecian, and Roman monarchs, from Nabonassar to Hadrian and Antoninus, together with the dates of their accession and the duration of their reigns. Its astronomic events are referred to definite historic dates, and by this connection there is conferred on the latter the character of scientific certainty.

This important feature of the "Almagest" is described as follows in the "Chrono-astrolabe," by James B. Lindsay, a work published in 1858, demonstrating the authenticity of Hebrew, Greek, and Roman chronology, etc., by astronomic methods:

"The 'Syntaxis' of Ptolemy contains an account of many historic events, and blended with them is a multitude of astronomic observations. The *astronomic* and *historic* cannot be separated, and they must both stand or fall together. *The astronomic can be rigidly verified, and the truth of the historic is a legitimate deduction.*"

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In the "Almagest," "a celestial phenomenon is coupled with a terrestrial event. An eclipse of the moon or an acronic of Mars is assigned to a given year and day of a king's reign. The celestial mechanism, though complicate, is intelligible; the motions are calculable, and we can verify or falsify the recorded observations."

With reference to Ptolemy's Canon, or chronological list of the monarchs of the four great empires, Lindsay says:

"The complete harmony that is to be found in this canon with the dates previously determined by eclipses, entitles it to our highest confidence. That Ptolemy was its author, and not Theon, is confirmed by the fact that it is not continued beyond Antoninus, in whose reign our author dates most of his observations. We have had abundant evidence that he was φιλόπονος and φιλαλήθης, a lover of labour and a lover of truth, and are fully warranted to regard this canon as giving to ancient history *mathematical exactness*. . . . The motions and phases of the luminaries are visible every day, and with these alone we have been able to authenticate the whole of the 'Almagest.' Even the errors of Ptolemy augment, if possible, the evidence for the authenticity of the 'Syntaxis,' *and a foundation is laid for chronology sure as the stars.* The external evidence for the text-book is most abundant. It is mentioned in terms of the highest approbation by Greek, Hebrew, and Arabian historians. In the ninth century the celebrated caliph, Al Mamun, caused it to be translated into Arabic. Persic and Hebrew versions engaged the attention of oriental *savants* in our middle ages, and at the dawn of printing Latin translations were abundantly diffused. . . . It is to Ptolemy that our modern astronomy is almost wholly due; but those who enjoy the benefit have forgotten the benefactor. The name of Ptolemy, who was certainly not inferior, perhaps superior, to Newton, is seldom mentioned but to be covered with pity or with ridicule. Even men of science have not given to Ptolemy the honour that belongs to him. Delambre has fancied that he was a mere copyist of Hipparchus, and that to the latter the excellences found in the 'Syntaxis' are all to be attributed. Far be it from us to deny the greatness of Hipparchus, but Ptolemy was greater. *His account of the ancient eclipses, and of their connection with historic facts, is more precious than gold, and guarantees a translation of the 'Almagest' into every language.* In the want of modern instruments he may have made an error in the observation of the equinoxes, and all facts then known sanctioned the earth's stability. *Veritas prevalebit* and the worth of Ptolemy is again appreciated."

In order to obtain a safe and scientific foundation for his

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mathematical calculations as to solar and lunar movements, including his valuable *astronomical tables*, Ptolemy compares three carefully selected, well-attested ancient eclipses, observed at Babylon in the reign of Mardocempadus, with three other eclipses which he had observed at Alexandria in the seventeenth, eighteenth, and twentieth years of the reign of Hadrian. He similarly compares three eclipses which took place in the fourth century after Nabonassar, referred to by the celebrated Greek astronomer Hipparchus, with three other eclipses recorded by the same astronomer, which occurred two centuries later.

In this comparison Ptolemy deals with no less than *four groups of ancient eclipses*, Babylonian, Grecian, and Roman, containing three in each, twelve in all. These eclipses have been frequently verified by modern astronomers, and they combine to fix the chronological dates with which they are connected with the utmost certainty. If a single eclipse is sufficient to attest an ancient date, how conclusive the concurrent evidence afforded by four groups of eclipses! But these are not all the astronomic phenomena which Ptolemy records. There are no less than eighty-five solar, lunar, and planetary positions, with their dates, given in the "Almagest" which have been verified by modern astronomers. These include four vernal equinoxes, eight autumnal, four summer solstices, nineteen lunar eclipses, nine lunar observations, and forty-one planetary observations, sixteen of Mercury, ten of Venus, five of Mars, five of Jupiter, and five of Saturn.

The time of the occurrence of these astronomic phenomena is measured by Ptolemy from noon of the first of the Egyptian month Thoth, in the first year of Nabonassar. The verification of the time of any of these events is the verification of the *initial date from which the whole series is reckoned.* Thoth 1 Nab. 1 is thus abundantly determined to be noon February 26th, B.C. 747.

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In addition to this primary Babylonian date, these astronomical records fix *directly* the times of the *Babylonian* monarchs Mardocempadus and Nabopolassar, the *Persian* monarchs Cambyses and Darius, the *Grecian* dates employed by Hipparchus, and the dates of the *Roman* emperors Domitian, Trajan, Hadrian, and Antoninus Pius; while *indirectly* they enable us to determine the dates of *all the intermediate reigns recorded in Ptolemy's* ASTRONOMICAL CANON, a list of fifty-five successive reigns, extending over a period of 907 years, from Nabonassar of Babylon to the Roman emperor Antoninus Pius.

This invaluable Canon, representing the unbroken imperial rule administered by successive dynasties of Gentile empires, is divided by Ptolemy into four distinct parts.

1. Babylonian kings, twenty in number.
2. Persian kings, ten in number, terminating with Alexander the Great, of Macedon, eleven names in all.
3. Grecian kings, twelve in number.
4. Roman emperors, twelve in number.

The sum of years given in the calendar is divided into two parts: first, 424 years, from Nabonassar to Alexander of Macedon; and secondly, 483 years, from Philip Aridæus to Antoninus Pius. The *agreement between the historical and chronological outline given in the canon of Ptolemy and that set forth in the fourfold image of Nebuchadnezzar's vision*, described and interpreted by Daniel, is most striking and important.

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THE CANON OF PTOLEMY.

Πτολεμαιου Κανων Βασιλεων. Ασσυριων και Μηδων.

		Ετη	Συναγωγη.
α	Ναβονασαρου . . .	ιδ	ιδ
β	Ναδιου	β	ιϛ
γ	Χωζιρου και Πορου . .	ε	κα
δ	Ιουγαιου	ε	κϛ
ε	Μαρδοκεμπαδου . . .	ιβ	λη
ϛ	Αρκιανου	ε	μγ
ζ	Αβασιλευτου πρωτου .	β	με
η	Βηλιβου	γ	μη
θ	Απρονναδιου	ϛ	νδ
ι	Ριγηβηλου	α	νε
ια	Μεσεσσιμορδακου . .	δ	νθ
ιβ	Αβασιλευτου δευτερου .	η	ξζ
ιγ	Ασσαριδινου	ιγ	π
ιδ	Σαοσδουχινου	κ	ρ
ιε	Χυνιλαδανου	κβ	ρκβ
ιϛ	Ναβοπολλασαρου . .	κα	ρμγ
ιζ	Ναβοκολλασαρου . .	μγ	ρπϛ
ιη	Ιλουαροδαμου . . .	β	ρπη
ιθ	Νιρικασσολασαρου . .	δ	ρϟβ
κ	Ναβονναδιου	ιζ	σθ

Περσων Βασιλεις.

κα	Κυρου	θ	σιη
κβ	Καμβυσου	η	σκϛ
κγ	Δαρειου α.	λϛ	σξβ
κδ	Ξερξου	κα	σπγ
κε	Αρταξερξου α . . .	μα	τκδ
κϛ	Δαρειου β.	ιθ	τμγ
κζ	Αρταξερξου β. . . .	μϛ	τπθ
κη	Ωχου	κα	υι
κθ	Αρωγου	β	υιβ
λ	Δαρειου γ.	δ	υιϛ
λα	Αλεξανδρου Μακεδονος	η	υκδ

Ptolemy's Canon of Kings of the Assyrians and Medes.

		Each.	Sum.
1	Nabonassar . . .	14	14
2	Nadius	2	16
3	Khozirus and Porus.	5	21
4	Jougaius	5	26
5	Mardocempadus. .	12	38
6	Archianus	5	43
7	First Interregnum .	2	45
8	Belibus	3	48
9	Apronadius . . .	6	54
10	Regibelus	1	55
11	Mesesimordachus .	4	59
12	Second Interregnum	8	67
13	Asaridinus . . .	13	80
14	Saosduchinus . . .	20	100
15	Khuniladanus. . .	22	122
16	Nabopolassar. . .	21	143
17	Nabokolassar. . .	43	186
18	Ilvarodamus . . .	2	188
19	Nerikassolassar . .	4	192
20	Nabonadius . . .	17	209

Persian Kings.

21	Cyrus	9	218
22	Cambyses	8	226
23	Darius I.	36	262
24	Xerxes	21	283
25	Artaxerxes I. . . .	41	324
26	Darius II.	19	343
27	Artaxerxes II. . .	46	389
28	Ochus	21	410
29	Arogus	2	412
30	Darius III. . . .	4	416
31	Alexander of Macedon	8	424

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	ΕΤΗ ΒΑΣΙΛΕΩΝ ΤΩΝ ΜΕΤΑ ΤΗΝ ΑΛΕΧΑΝΔΡΟΥ ΤΟΥ ΒΑΣΙΛΕΩΣ ΤΕΛΕΥΤΗΝ.	Ετη	Συναγωγη.
α	Φιλιππου του μετ' Αλεξανδρον τον κτιστην	ζ	ζ
β	Αλεξανδρου Αιγου . .	ιβ	ιθ
	ΕΛΛΗΝΩΝ ΒΑΣΙΛΕΙΣ ΕΝ ΑΙΓΥΠΤΩ.		
γ	Πτολεμαιου Λαγου . .	κ	λθ
δ	Πτ. φιλαδελφου . .	λη	οζ
ε	Πτ. Ευεργετου α. . .	κε	ρβ
ϛ	Πτ. Φιλοπατορος . .	ιζ	ριθ
ζ	Πτ. Επιφανους . . .	κδ	ρμγ
η	Πτ. Φιλομητορος . .	λε	ροη
θ	Πτ. Ευεργετου β. . .	κθ	σζ
ι	Πτ. Σωτηρος . . .	λϛ	σμγ
ια	Πτ. Διονυσου . . .	κθ	σοβ
ιβ	Κλεοπατρας	κβ	σϟδ
	ΡΩΜΑΙΩΝ ΒΑΣΙΛΕΙΣ.		
ιγ	Αυγουστου	μγ	τλζ
ιδ	Τιβεριου	κβ	τνθ
ιε	Γαιου	δ	τξγ
ιϛ	Κλαυδιου	ιδ	τοζ
ιζ	Νερωνος	ιδ	τϟα
ιη	Ουεσπασιανου . . .	ι	υα
ιθ	Τιτου	γ	υδ
κ	Δομετιανου	ιε	υιθ
κα	Νερουα	α	υκ
κβ	Τραιανου	ιθ	υλθ
κγ	Αδριανου	κα	υξ
κδ	Αντονινου . . .	κγ	υπγ

	YEARS OF THE KINGS AFTER THE DEATH OF KING ALEXANDER.	Each.	Sum.
1	Philip, after Alexander the Founder .	7	7
2	Alexand. Ægus . .	12	19
	KINGS OF THE GREEKS IN EGYPT.		
3	Ptolemy Lagus . .	20	39
4	— Philadelphus . .	38	77
5	— Euergetes I. . .	25	102
6	— Philopator . .	17	119
7	— Epiphanes . .	24	143
8	— Philometor . .	35	178
9	— Euergetes II. .	29	207
10	— Soter	36	243
11	— Dionysius . . .	29	272
12	Cleopatra	22	294
	KINGS OF THE ROMANS.		
13	Augustus	43	337
14	Tiberius	22	359
15	Caius	4	363
16	Claudius	14	377
17	Nero	14	391
18	Vespasian	10	401
19	Titus	3	404
20	Domitian	15	419
21	Nerva	1	420
22	Trajan	19	439
23	Hadrian.	21	460
24	Antoninus	23	483

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(IV.) Chronology of our Lord's Passion.

We now come to the most central and important portion of Redemption chronology. In approaching the times relating to the death of Christ we are reminded of the word of the Lord to Moses, "Put thy shoes from off thy feet, for *the place whereon thou standest is holy ground.*" Great is the mystery of Godliness. "God was manifest in the flesh, justified in the spirit, seen of angels, preached unto the Gentiles, believed on in the world, received up into glory." Prophets and angels have sought to look into these things, and to understand the times and seasons connected with their accomplishment. The Church of the Old Testament and that of the New have their faces directed towards these sacred mysteries, like the faces of the cherubim whose wings shadow the blood-stained mercy-seat. That mercy-seat, with its memorials of Redemption, is the holy ground whereon we stand.

Moses and Elias, representing the Law and the Prophets, spoke beforehand of the death of Christ, which He was to accomplish at Jerusalem. Since its accomplishment, the Christian Church throughout the world has never ceased to commemorate that sacred death. When was it accomplished? At what period in history did Jesus Christ atone for the sins of the world?

The time of the advent and death of our Lord is well known; we date our years from His nativity, and the year of His Passion can be fixed within comparatively narrow limits.

"Not a word about Christianity is mentioned by Cæsar, Cicero, Livy, Virgil, and Ovid, and to believe that it existed without being mentioned by them is preposterous credulity. A century after these writers, Christians are mentioned by Josephus, Tacitus, Pliny, and Suetonius, and the *advent* of their Master must have been in the interval. Four different

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accounts of the life and death of Christ are given, the difference of authorship is proved by apparent discrepancies, and the truthfulness of the account is confirmed by the general harmony. Luke relates several data with great minuteness, and this affords a strong argument of veracity. He says that John commenced his preaching in the fifteenth year of Tiberius, and that soon after Jesus also commenced, when He was about thirty years of age. He also says that Christ was born during the reign of Augustus, and both he and Matthew place that event a little before the death of Herod. Now, from Ptolemy's canon we know exactly the times of Augustus and Tiberius, and the time of the death of Herod is determined from Josephus. The time thus obtained for the origin of Christianity is just in the interval of those Roman writers who do not mention it and those who do, and there is no other time possible that can be fixed upon for its origin." [1]

The birth of our Lord took place in the reign of Augustus Cæsar, and His death in that of Tiberius. Christ was born during the reign of Herod the Great. The death of Herod took place in B.C. 4. The date is fixed by the testimony of Josephus, and is confirmed by an eclipse which took place a short time before Herod's death ("Ant." xvii. 6, 4). Ideler and Wurm have calculated the time of this eclipse of the moon, which was visible at Jerusalem, as the night between the 12th and 13th of March, beginning at 1h. 48m. and ending at 4h. 12m. The date of the centre of the eclipse in our tables is March 13, 3.50 a.m. (see Vol. II.). Herod died about a week before this eclipse,[2] and as our Lord was born *before the death of Herod*, the Nativity took place before March 12, B.C. 4. Our A.D. 1 date fixed by Dionysius Exiguus in the sixth century errs therefore by at least four years. But the evidence points to the view that our Lord

[1] Lindsay, "Chrono-Astrolabe," p. 142.
[2] See Weseler, "Synopsis of Four Gospels," p. 51.

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was a year or more of age at the death of Herod, who, in the attempt to "destroy" "the young child," slew at Bethlehem "all the children from two years old and under, according to the time which he had diligently inquired of the wise men."[1] As our Lord was thirty years of age at His baptism (Luke iii. 23), and as, according to the evidence of the Gospel of John, the ministry of our Lord included four Passovers, or three complete years, the date of His death is indicated approximately in the New Testament, and the date agrees with that assigned by the almost unanimous consent of the Latin Fathers. Eusebius says, "The whole time of our Saviour's ministry is proved not to embrace four entire years, there being four high-priests for four years, from Annas to the appointment of Caiaphas, each of whom held the office a year respectively."[2] Josephus is cited by Eusebius in confirmation of this statement: "If the duration of the ministry (of our Lord) was three and a half years, then the year of His birth would be carried back to the autumn of A.U.C. 748" (B.C. 6).[3]

The year of our Lord's Passion must lie between A.D. 28 and 33.

In all these years there is only one in which the 14th of Nisan coincides with a Friday, the year A.D. 29, and this is the year in which the death of Christ is placed by Lactantius, Augustine, Sulpicius, Origen, Jerome, and Tertullian. "The consular date assigned almost with one consent by the Latin Fathers is the year of the two Gemini, U.C. 782, A.D. 29."[4]

1. Tertullian: "Quæ passio perfecta est sub Tiberio Cæsare, coss. Rubellio Gemino et Fuvio Gemino" (*Adv. Jud.* c. 8).

2. Lactantius: "Dominus noster Jesus Christus a Judæis cruciatus est . . . duobus Gemini coss." (*De Mort. Pers.* c. 2).

[1] Matt. i. 16. [2] "Eccl. Hist." vi. 1, c. x.
[3] Robinson's "Harmony of the Four Gospels," p. 196.
[4] Browne, "Ordo Sæclorum," p. 73.

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3. Sulpicius Severus: "Dominus crucifixus est Fuvio Gemino et Rubellio Gemino coss." (*Hist. Sac.* ii. 40).

4. St. Augustine: "Mortuus est Christus duobus Gemini coss." (*De Civ. Dei*, xviii.).

"Nowhere in the first five centuries," says Ideler (ii. 415), "do we find any other consular date of the death of Christ than the year of the two Gemini, except in the Greek writer Epiphanius."

The day in the year A.D. 29 on which the 14th of Nisan, or day of the full moon of Nisan, coincided with Friday, was March 18th. "The 18th of March was regarded by the Western Church, prior to the Council of Nice, as the anterior Paschal limit."[1] This statement is confirmed by the Paschal cycle of St. Hippolytus, A.D. 222, given in full in the introduction to the second volume of this work. The 18th of March is the day assigned to the death of Christ in copies of the *Acta Pilati* existing in the time of Epiphanius.[2]

1. *Relation of the central dates in Christ's redeeming work to the principal dates in the Levitical Calendar.*

We have already pointed out that the three most important events in Redemption, the death and resurrection of our Lord, and the Advent of His Spirit, coincided with the day of Passover (14th of Nisan), the day of the presentation of the wave-sheaf (16th of Nisan), and the day of Pentecost. For 1,600 years the character and times of these great New Testament events were prefigured by the Divinely appointed ordinances of the Law, and for nineteen centuries since the Jewish nation throughout the world has continued to commemorate these events and their times, unconscious of the meaning of its own action. The later dates of the Levitical Calendar connected with the feast of Trumpets, the day of Atonement, and the feast of Tabernacles, evidently point to the closing events in the order of the work of Redemption,

[1] Browne, "Ordo Sæclorum," p. 55. [2] Ibid. p. 78.

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events connected, not with the first Advent of Christ, but with the second.

2. Relation of the period of Christ's ministry and the time of His death to the "70 weeks" of Prophecy.

The importance of the "70 weeks" chronological prophecy in the 9th chapter of Daniel can hardly be overestimated as the only prophecy in the Old Testament definitely predicting the time of the Advent and death of Messiah. The *terminus a quo* of the "70 weeks" is the Persian edict "to restore and build Jerusalem." There are two such edicts recorded in the books of Ezra and Nehemiah, whose dates are the 7th and 20th years of the reign of Artaxerxes. The journeys of Ezra and Nehemiah to Jerusalem connected with these edicts commenced in each case in the Passover month of Nisan (Ezra vii. 7, 9; Neh. ii. 1). The date of the accession of Artaxerxes is determined by the canon of Ptolemy, and his seventh year, by the calculations of Sir Isaac Newton, commenced "after the midsummer of An. J. P. 4256, and the journey of Ezra to Jerusalem in the spring following fell on the beginning of An. J. P. 4257,"[1] or in B.C. 457. The 20th of Artaxerxes is similarly ascertained to have been the year B.C. 444. The Jews observed the week of years as well as the week of days, every seventh year being sabbatic. Reckoned from B.C. 457, the prophetic "70 weeks" of years *coincided with Jewish weeks of years*, their dates being gathered from the testimony of Josephus. Sir Isaac Newton says of the "70 weeks" as reckoned from B.C. 457, "The 70 weeks of years are Jewish weeks, ending with sabbatical years, which is very remarkable." This coincidence confirms the calculation as to the Ezra starting-point.

The date of the Nehemiah starting-point, B.C. 444, is thus

[1] Sir I. Newton, "Observations on Prophecies of Daniel," p. 143; also my work on "The Approaching End of the Age," p. 515.

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referred to by Greswell in the fourth volume of his "Dissertations" (p. 298): "Though the date of the mission of Nehemiah has been repeatedly assumed as the point of departure to the prophecy of the seventy weeks, it cannot be denied that there is, and always must be, the greatest apparent improbability, *a priori*, that the date of *an event which cannot be placed either earlier or later than* B.C. 444 should ever turn out to be the true point of commencement to a series of seventy weeks of years, extending over an interval of 490 years at least, if the whole was destined to come to a close, in any sense, about the period of the gospel era." What Greswell considered as next to impossible is accomplished, as may be seen in the following table of the "70 weeks," reckoned in *lunar* years, from the year B.C. 444. This mode of reckoning the period is not new, as it was advocated by Julius Africanus in the third century. Africanus points to the fact that "475 years make 490 according to the Hebrew numeration, as they reckon by the course of the moon." He takes the 20th of Artaxerxes as his starting-point.[1]

His conviction that the prophecy of Daniel had been fulfilled was profound; "I am amazed," he says, "that the Jews deny that the Lord has yet come, and that the followers of Marcion refuse to admit that His coming was predicted in the prophecies, when the Scriptures display the matter so openly to our view."

Reckoning from the month of Nisan, B.C. 457, the Ezra terminus, we find that the period in the "70 weeks" which extended to our Lord's death, resurrection, and ascension was exactly 6,000 lunations, and thus *answered to the* 600 *lunations which in the corresponding* 49 *years Jubilee period extended to the entrance of the High Priest within the veil on the great day of atonement in the year of jubilee.* "The interval between B.C. 457 and A.D. 29 is 485 years, and

[1] "Anti-Nicene Fathers," vol. ix., pp. 184–190.

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that period contains 6,000 lunations, less 41–42 days. Now the interval from our Lord's death to His ascension was 41–42 days; therefore 485 solar years terminating with our Lord's death, together with the 41-42 days which followed to His ascension, are 6,000 lunations."[1] Our tables in the second volume of this work show that the lunar phasis in the year B.C. 457 coincided with the vernal equinox. The date of the true new moon, Jerusalem civil time, as shown in our tables, is March 25d. 8h. 45m., that of the vernal equinox March 26d. 10h. 34m., and the lunar phasis fell on the evening of March 26th. These dates are confirmed by the 2,300 years lunar cycle, extending from new moon and vernal equinox of B.C. 457 to new moon and vernal equinox of A.D. 1844.

Reckoning the "70 weeks" in *lunar* years from the *Nehemiah* terminus, B.C. 444, the death of our Lord in A.D. 29 took place at the bisection of the last week of years. The accuracy here too is remarkable. The two following tables exhibit the "70 weeks" as reckoned *in solar years from the Ezra and in lunar years from the Nehemiah starting-points.*

"70 WEEKS," OR 490 SOLAR YEARS, AS INCLUDING FIVE HUNDRED LUNAR YEARS (6,000 LUNATIONS) FROM THE EZRA PASSOVER COMMENCEMENT TO THE ASCENSION OF CHRIST, A.D. 29.

	Lunar Years.	Lunar Months.	B.C.	New Moon.
			457	March 25
1	50	600	409	Sept. 27
2	100	1200	360	Apr. 2
3	150	1800	312	Oct. 5
4	200	2400	263	Apr. 10
5	250	3000	215	Oct. 13
6	300	3600	166	Apr. 17
7	350	4200	118	Oct. 21
8	400	4800	69	Apr. 24
9	450	5400	21	Oct. 27
			A.D.	
10	**500**	**6000**	29	May 2

[1] "Approaching End of the Age," p. 513.

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"70 WEEKS," OR 490 LUNAR YEARS, FROM B.C. 444 TO A.D. 32, THE TERMINAL "WEEK" BISECTED BY THE PASSOVER MONTH, A.D. 29.

"Weeks" of Years.	Lunar Years.	B.C.	Months.	"Weeks" of Years.	Lunar Years.	B.C.	Months.
		444	Mar. 2				
1	7	438	Dec. 17	36	252	200	Aug. 29
2	14	431	Oct. 1	37	259	193	June 13
3	21	424	July 17	38	266	186	Mar. 30
4	28	417	May 1	39	273	179	Jan. 13
5	35	410	Feb. 15	40	280	173	Oct. 28
6	42	404	Nov. 30	41	287	166	Aug. 13
7	49	397	Sept. 15	42	294	159	May 29
8	56	390	July 1	43	301	152	Mar. 14
9	63	383	Apr. 16	44	308	146	Dec. 28
10	70	376	Jan 30	45	315	139	Oct. 13
11	77	370	Nov. 15	46	322	132	July 28
12	84	363	Aug. 30	47	329	125	May 13
13	91	356	June 15	48	336	118	Feb. 26
14	98	349	Mar. 31	49	343	112	Dec. 12
15	105	342	Jan. 14	50	350	105	Sept. 26
16	112	336	Oct. 30	51	357	98	July 13
17	119	329	Aug. 14	52	364	91	Apr. 27
18	126	322	May 31	53	371	84	Feb. 10
19	133	315	Mar. 16	54	378	78	Nov. 26
20	140	309	Dec. 29	55	385	71	Sept. 11
21	147	302	Oct. 14	56	392	64	June 26
22	154	295	July 30	57	399	57	Apr. 11
23	161	288	May 15	58	406	50	Jan. 26
24	168	281	Feb. 29	59	413	44	Nov. 10
25	175	275	Dec. 14	60	420	37	Aug. 26
26	182	268	Sept. 28	61	427	30	June 11
27	189	261	July 14	62	434	23	Mar. 27
28	196	254	Apr. 30	63	441	16	Jan. 10
29	203	247	Feb. 13	64	448	10	Oct. 26
30	210	241	Nov. 28	65	455	3	Aug. 11
						A D.	
31	217	234	Sept. 14	66	462	5	May 26
32	224	227	June 29	67	469	12	Mar. 11
33	231	220	Apr. 14	68	476	18	Dec. 26
34	238	213	Jan. 29	69	483	25	Oct. 10
35	245	207	Nov. 13	69½	486½	29	Mar. 4
				70	490	32	July 26

3. *Interval from the Nabonassar Era, Feb.* 26, B.C. 747, *the starting-point of the Canon of Ptolemy, to the year of our Lord's Passion,* A.D. 29.

The chronological value of the astronomical Canon of

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Ptolemy is very great. The Canon presents an unbroken series of reigns, Babylonian, Persian, Grecian and Roman, extending from B.C. 747 to A.D. 160. The date of the commencement of each reign is assigned, and its duration measured. The separate years are given in one column, and in a parallel column their sum. All the astronomical dates in Ptolemy's great work, "The Almagest," and they are numerous, are linked with the dates in his Canon. They are all reckoned from his initial date, the Era of Nabonassar, Feb. 26, B.C. 747. The date of every eclipse, of every planetary position, of every equinox, is measured from this point; and measured not only in years, and in months, but even in days and hours. All Ptolemy's astronomical positions have been verified, and the chronology of his Canon has thus been fixed on a foundation "sure as the stars." There is a providence in this coupling of celestial phenomena with terrestrial events. The "Times of the Gentiles" commence with those of the Kingdom of Babylon of the Canon, and include the course of the four empires named in the Canon. *The four kingdoms of Ptolemy and the four kingdoms of Daniel agree.* In Daniel's prophecy the four kingdoms end with the second Advent of Christ in the clouds of heaven to exercise universal sovereignty. As the Advent of the kingdom of God is connected with the chronology of these kingdoms it becomes a deeply interesting matter to ascertain what was the interval which extended from the Nabonassar starting-point of the four empires to the year of our Lord's death, resurrection, and ascension. We have seen that from the Ezra starting-point of the "70 weeks," the interval was 500 *lunar years*, or 6,000 lunations. Was the period from the Nabonassar starting-point chronologically analogous? We find on examination that it was. The period was 800 *lunar years*. The great year of Redemption, A.D. 29, was the 800th lunar year, terminating with the vernal equinox of A.D. 30, as can be seen in the following table.

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800 LUNAR YEARS, FROM THE MONTH OF THE NABONASSAR ERA, TO THE END OF THE YEAR OF REDEMPTION, A.D. 29–30.

Lunar Years.	B.C.	New Moon.	Lunar Years.	B.C.	New Moon.	Lunar Years.	B.C.	New Moon.	Lunar Years.	B.C.	New Moon.
	747	Feb. 20									
10	738	Oct. 6	210	544	Oct. 20	410	350	Nov. 5	610	156	Nov. 19
20	728	June 18	220	534	July 3	420	340	July 18	620	146	Aug. 2
30	718	Mar. 2	230	524	Mar. 16	430	330	Apr. 1	630	136	Apr. 15
40	709	Nov. 12	240	515	Nov. 28	440	321	Dec. 13	640	127	Dec. 28
50	699	July 27	250	505	Aug. 10	450	311	Aug. 25	650	117	Sept. 9
60	689	Apr 9	260	495	Apr. 25	460	301	May 9	660	107	May 24
70	680	Dec. 21	270	485	Jan. 6	470	291	Jan. 20	670	97	Feb. 5
80	670	Sept. 4	280	476	Sept. 18	480	282	Oct. 4	680	88	Oct. 18
90	660	May 18	290	466	June 2	490	272	June 17	690	78	July 2
100	650	Jan. 29	**300**	456	Feb. 13	**500**	262	Feb. 28	**700**	68	Mar. 15
110	641	Oct. 12	310	447	Oct. 28	510	253	Nov. 11	710	59	Nov. 26
120	631	June 25	320	437	July 10	520	243	July 25	720	49	Aug. 9
130	621	Mar. 9	330	427	Mar. 24	530	233	Apr. 7	730	39	Apr. 22
140	612	Nov. 20	340	418	Oct. 7	540	224	Dec. 20	740	29	Jan. 5
150	602	Aug. 3	350	408	Aug. 18	550	214	Sept. 2	750	20	Sept. 17
160	592	Apr. 17	360	398	May 2	560	204	May 17	760	10	June 1
										A.D.	
170	583	Dec. 29	370	388	Jan. 12	570	194	Jan. 28	**770**	1	Feb. 12
180	573	Sept. 11	380	379	Sept. 26	580	185	Oct. 10	780	10	Oct. 26
190	563	May 25	390	369	June 9	590	175	June 25	790	20	July 9
200	553	Feb. 6	**400**	359	Feb. 20	**600**	165	Mar. 7	**800**	30	**Mar. 22**

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4. *Interval of* 1,260 *lunar years* (15,120 *lunations*) *from the era of Nabonassar, Feb.* 26, B.C. 747, *to the fall of Romulus Augustulus* (*end of the Western Roman Empire*), *Aug.* 22, A.D. 476.

The providential employment of *the lunar year*, as a measure of times in connection with terrestrial history, is clearly established by the most certain and significant fact which I discovered and published sixteen years ago in the "Approaching End of the Age" (2nd edit.): that the joint duration of the four empires of Babylon, Persia, Greece and Rome, from the era of Nabonassar, Feb. 26, B.C. 747 (the starting-point of the Babylonian kingdom in the Canon of Ptolemy), to the fall of Romulus Augustulus and end of the Western Roman Empire, Aug. 22, A.D. 476, is *exactly* 1,260 *lunar years.*[1]

In the prophecies of Daniel relating to the "Times of the Gentiles," the duration of the persecuting "little horn" of the fourth empire is limited to 1,260 symbolic "days" or years. In the Apocalypse the same period is assigned to the dominion of the revived persecuting antichristian head of the fourth empire, and to the contemporaneous prophesying of the witnesses, etc. It is a noteworthy fact as indicating the importance of this period that it occurs no less than seven times in the books of Daniel and Revelation. *But the period of* 1,260 *years, or* 3½ "*Times,*" *is a broken period.* It is *half a great week of prophetic years or* "*Times,*" *i.e.*, half 2,520 years. The first half of this great historic "week" must be equal to the second. And here we find that the duration of the four empires in their first or pre-Papal, pre-Mohammedan form, was limited by the wonder-working hand of God to 1,260 years in lunar form; while on the other hand prophecy and history conjointly indicate that 1,260 years in solar form is

[1] "The last Augustus had worn the purple only 10 months, from 31 Oct., 475, to 22 Aug., 476." Clinton, "Fasti Romani—Epitome," p. 196.

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the appointed limit of the domination of the Papal power, and 1,260 years in lunar form that of the Mohammedan.

In the annexed Table it will be seen that the 22nd of Aug., A.D. 476, the date of the termination of the Western Roman Empire, *fell in the last of the* 15,120 *lunations contained in* 42 *prophetic "months," or* 1,260 *lunar years.*

Romulus Augustulus was the last of the long line of the Cæsars, the last of the Western Roman emperors. His fall marks the end of the four great pagan empires of antiquity. In my work, entitled "Light for the Last Days," the following paragraph occurs referring to the remarkable fact that the joint duration of these four empires was limited to exactly 1,260 lunar years. "Think of the long complex wonderful story that terminated in this year (A.D. 476); think of the magnitude, variety, and multiplicity of the events constituting the rise, course, direction, and fall of these four universal empires; think of the careers of Nebuchadnezzar and Belshazzar, of Cyrus and Darius, of Xerxes and Alexander the Great, of the Maccabees and the Seleucidæ and the Ptolemies, of Pompey and Julius and Augustus,—above all, of the sublime and ever-memorable events of the career of 'Messiah the Prince'; think of the Herods and of Pilate, of Titus and of Hadrian, and of the fall of Jerusalem and destruction of the Jewish nation; think of the long line of the Cæsars, their conquests and their crimes, their glories and their shames, their world-wide dominion and unparalleled power; think of the pagan persecutions of the Early Church, and of the first division of the noble army of martyrs; think of the conversion of Constantine, and the establishment of Christianity in the Roman world; think of the division of the empire, and of the removal of the seat of government to Constantinople; think of the dreadful inroads of northern barbarism, and of the long-continued decline of the old Roman civilisation; let the mind run slowly over the events of these twelve or thirteen centuries of human history; let the magnificence and the

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INTERVAL OF *1,260 LUNAR YEARS* (15,120 LUNATIONS) OR 42 PROPHETIC "MONTHS" (LUNAR). FROM THE ERA OF NABONASSAR, FEB. 26, B.C. 747, TO THE FALL OF ROMULUS AUGUSTULUS, END OF WESTERN ROMAN EMPIRE, AUG. 22, A.D. 476.

Proph. Months.	Lunar Years.	Synodic Months.	Sum. Syn. M.	B.C.	New Moons.			Proph. Months.	Lunar Years.	Synodic Months.	Sum. Syn. M.	B.C.	New Moons.		
						d.	*h.*							*d.*	*h.*
				747	Feb.	20	18								
1	30	360	360	718	April	1	3	22	660	360	7,920	107	June	22	21
2	60	360	720	689	May	9	5	23	690	360	8,280	78	Aug.	1	5
3	90	360	1,080	660	June	16	19	24	720	360	8,640	49	Sept.	8	6
4	120	360	1,440	631	July	25	7	25	750	360	9,000	20	Oct.	16	21
												A.D.			
5	150	360	1,800	602	Sept.	2	7	26	780	360	9,360	10	Nov.	24	15
6	180	360	2,160	573	Oct.	10	18	27	810	360	9,720	40	Jan.	2	22
7	210	360	2,520	544	Nov.	19	4	28	840	360	10,080	69	Feb.	10	10
8	240	360	2,880	515	Dec.	28	4	29	870	360	10,440	98	Mar.	21	16
9	270	360	3,240	485	Feb.	4	19	30	900	360	10,800	127	April	29	9
10	300	360	3,600	456	Mar.	14	15	31	930	360	11,160	156	Mar.	9	9
11	330	360	3,960	427	April	22	20	32	960	360	11,520	185	July	14	16
12	360	360	4,320	398	June	1	4	33	990	360	11,880	214	Aug.	22	23
13	390	360	4,680	369	July	9	4	34	1,020	360	12,240	243	Oct.	1	9
14	420	360	5,040	340	Aug.	16	18	35	1,050	360	12,600	272	Nov.	8	11
15	450	360	5,400	311	Sept.	24	9	36	1,080	360	12,960	301	Dec.	17	3
16	480	360	5,760	282	Nov.	2	14	37	1,110	360	13,320	331	Jan.	24	22
17	510	360	6,120	253	Dec.	11	2	38	1,140	360	13,680	360	Mar.	4	4
18	540	360	6,480	223	Jan.	19	12	39	1,170	360	14,040	389	April	12	14
19	570	360	6,840	194	Feb.	27	9	40	1,200	360	14,400	418	May	21	17
20	600	360	7,200	165	April	5	21	41	1,230	360	14,760	447	June	29	8
21	630	360	7,560	136	May	14	16	*42*	*1,260*	360	*15,120*	476	Aug.	5	19

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might of Nineveh, Babylon, Jerusalem, Antioch, Alexandria, Rome, Constantinople, and a hundred other great cities pass like a panorama before the mental eye, and melt away like dissolving views into the contrasted spectacle of their wreck and ruin, their struggles and sufferings, in siege and sack and overthrow; let the myriad episodes of their history recorded by the Jewish prophets and Josephus, by Herodotus and Thucydides, by Eusebius and Gibbon in his 'Decline and Fall,' be recalled: and let us then measure if we can the marvel of omniscience and foreknowledge that is involved in the fact that not only the occurrence, the order, and the sequence of this almost interminable series of events was foreseen in detail and foretold in outline from the beginning, but that *the time required for their conjoint occurrence was appointed and arranged, and that even to a day!* The entire history of the four great empires up to the point of the fall of the fourth in its first or empire form (as distinguished from its last or ten-kingdom phase) occupied precisely 'time, times, and a half,' or, 1,260 years on the lunar scale."[1]

5. *Interval of* 15,120 *days, or* 42 *Prophetic years, from Palm Sunday,* A.D. 29, *to the day of the Conflagration of the Temple,* A.D. 70.

The chronological analogy of this period with the last is remarkable; the one is 15,120 lunar months, the other 15,120 solar days; the one is 42 Prophetic "months" of years, the other 42 Prophetic years. The ratio of the one to the other is *the ratio of the Synodic month to the Solar day.* Palm

[1] The interval from the Era of Nabonassar, Feb. 26, B.C. 747, to Aug. 22, A.D. 476, was 15,120 lunations and 11 days. 15,120 lunations, or 1,260 lunar years, are 446,502½ days, and equal 1,222 Tropical Years and six lunar months within half a day, as stated in the "Approaching End of the Age," and "Light for the Last Days," but the interval to Aug. 22 exceeds this by 11 days; an unimportant fractional difference in so vast an adjustment.

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Sunday in A.D. 29 was Mar. 13, the 72nd day of the year. The 10th of Ab, the day on which the Temple was burned, Aug. 4, A.D. 70, was the 216th day of the year. From Mar. 13, 294 days extend to the end of A.D. 29. In the subjoined table, the years marked with an asterisk are bissextile years, or years of 366 days. On the occasion of His triumphal entry into Jerusalem on Palm Sunday, our Lord cleansed the Temple (Matt. xxi. 12), awakening the sore displeasure of the Chief Priests and Scribes. Thus closed His 3½ years' ministry to Israel. Twelve times 1,260 days later (3½ Prophetic years × 12) to a day, the Temple was set on fire by the Roman soldiery of Titus. We recall the fact that it was on the Palm Sunday of His triumphal entry that our Lord wept over Jerusalem, foreseeing its approaching doom. In the light which shines from the burning Temple we read His memorable and mournful prediction. The Jewish historian, Josephus, thus describes the destruction of the Temple:—"And now that fatal day was come, according to the revolution of ages: it was the tenth day of the month Lous (Ab) upon which it was formerly burnt by the King of Babylon; . . . one of the soldiers without staying for any orders, and without any concern or dread upon him at so great an undertaking, and being hurried on by a certain divine fury, snatched somewhat out of the materials which were on fire, and being lifted up by another soldier, he set fire to a golden window, through which there was a passage to the rooms that were round about the holy house, on the north side of it. And as the flames went upward the Jews made a great clamour, such as so mighty an affliction required, and ran together to prevent it; and now they spared not their lives any longer, nor suffered anything to restrain their force, since that holy house was perishing, for whose sake it was that they kept such a guard about it. . . . And now round about the altar lay dead bodies heaped one upon another, as at the steps going up to it ran a great quantity of their

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blood; whither also the dead bodies that were slain above (on the altar) fell down." [1]

Aug. 4, A.D. 70, was Saturday, the Jewish Sabbath. From Palm Sunday, when our Lord foretold with tears the destruction of Jerusalem, to the Sabbath day on which the Temple was burned, there elapsed 2,160 weeks, or 15,120 days; or 42 years of 360 days, the period beginning on the first day of the week and ending on the last.[2]

INTERVAL OF 15,120 DAYS (42 PROPHETIC YEARS) FROM PALM SUNDAY, MARCH 13, A.D. 29 (ENTRY INTO THE TEMPLE), TO AUGUST 4, A.D. 70 (THE 10TH OF AB), DAY OF THE BURNING OF THE TEMPLE.

A.D.	Days.	Sum.	A.D.	Days.	Sum.	A.D.	Days.	Sum.
29	294	294	43	365	5,407	57	365	10,521
30	365	659	*44	366	5,773	58	365	10,886
31	365	1,024	45	365	6,138	59	365	11,251
*32	366	1,390	46	365	6,503	*60	366	11,617
33	365	1,755	47	365	6,868	61	365	11,982
34	365	2,120	*48	366	7,234	62	365	12,347
35	365	2,485	49	365	7,599	63	365	12,712
*36	366	2,851	50	365	7,964	*64	366	13,078
37	365	3,216	51	365	8,329	65	365	13,443
38	365	3,581	*52	366	8,695	66	365	13,808
39	365	3,946	53	365	9,060	67	365	14,173
*40	366	4,312	54	365	9,425	*68	366	14,539
41	365	4,677	55	365	9,790	69	365	14,904
42	365	5,042	*56	366	10,156	70	216	15,120

6. *Interval of* 57 *days from Palm Sunday to Pentecost Sunday.*

The great Prophetic period of 2,300 years connected with the treading down of the Sanctuary measures 5,000 revolutions of the 24 courses of the priests, together with 57 days, the redemption interval in A.D. 29 extending from Palm Sunday to Pentecost Sunday.

[1] "Wars of the Jews," Bk. vi., ch. iv., 5, 6.

[2] Brown, "Ordo Sæclorum," p. 403, has noticed this period, but he dates it from the Sunday of our Lord's resurrection, Mar. 20, to the Sabbath which *followed* that of the burning of the Temple, Aug. 11, which is to make the period begin and end a week too late.

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According to the tradition of the Jews, the day on which the Temple was burned by Titus occurred in the week of Joarib, the initial week of the 24 courses of the priests (Mishna iii. 298). One week was allotted to each course, beginning with a Sabbath (2 Chron. xxiii. 8), the 24 courses occupying 24 weeks, or 168 days. The interval from Palm Sunday A.D. 29, to the 10th of Ab, A.D. 70, 15,120 days, is 168×90, or equalled 90 revolutions of the 24 courses. The 24 weeks' Temple period has a certain remarkable relation to the 2,300 years' Sanctuary cycle, to which we may here refer. Twenty-three solar years are 8400·57 days, or 50 revolutions of the 24 courses (a jubilee measure), with a fraction of ·57 of a day. One hundred such periods, or 2,300 years, contain 840,057 days, or 840,000 days, + 57 days, and 840,000 days equal 5,000 revolutions of the 24 courses. Now the periods connected with the earthly life of our Lord, and the Pentecostal Advent of the Holy Spirit, were contained within the limits of the 2,300 years' Sanctuary cycle, which, beginning with the invasion of Greece by Xerxes, B.C. 480, and in a secondary fulfilment with the 7th year of Artaxerxes, B.C. 457, extends to the years 1821–1844. The fraction of 57 days in the 2,300 years, over and above the 5,000 revolutions of the 24 courses, falls within this period, and it is interesting to observe that it exactly measured the interval which extended from Palm Sunday to Pentecost Sunday in A.D. 29, and included the last week in our Lord's ministry, His death, resurrection, and ascension, and the Pentecostal Advent of the Holy Spirit.

INTERVAL OF 57 DAYS, FROM PALM SUNDAY TO PENTECOST SUNDAY, A.D. 29.

1	Palm Sunday.	20	Friday.	40	Th.
	Entry into Jerusalem.	21	Sat.	41	Friday.
2	Mon.	22	Sunday.	42	Sat.
3	Tu.	23	Mon.	43	Sunday.
4	Wed.	24	Tu.	44	Mon.
5	Th.	25	Wed.	45	Tu.
6	Friday. Crucifixion.	26	Th.	46	Wed.
7	Sat.	27	Friday.	47	Th.
8	Sunday. Resurrection.	28	Sat.	48	Friday.
9	Mon.	29	Sunday.	49	Sat.
10	Tu.	30	Mon.	50	Sunday.
11	Wed.	31	Tu.	51	Mon.
12	Th.	32	Wed.	52	Tu.
13	Friday.	33	Th.	53	Wed.
14	Sat.	34	Friday.	54	Th.
15	Sunday.	35	Sat.	55	Friday.
16	Mon.	36	Sunday.	56	Sat.
17	Tu.	37	Mon.	57	Pentecost Sunday.
18	Wed.	38	Tu.		
19	Th.	39	Wed.		

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The law as to the 7 weeks and 1 day from the day of the presentation of the "Wave sheaf," the 16th of Nisan (day of Christ's resurrection), to the day of Pentecost, occurs in Lev. xxv. 15–21. Palm Sunday preceded Easter Sunday by an entire week; hence the period from Palm Sunday to Pentecost Sunday is, as above shown, 8 weeks and 1 day.

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(V.) Adjustment of Natural Times to Revealed.

Natural Times and Revealed are mutually adjusted in ways so numerous, varied, and far-reaching as to demonstrate them to be but two sections of one great time system.

In introducing this important department of the present work, we pause for a moment to point to the existence and universality of

Chronological Adjustments in Nature.

The adjustment of Natural Times to Revealed is only a higher form of chronological adjustment analogous to the adaptation of the revolutions of inorganic Nature to those of the organized and intelligent world. It is evident that the inorganic world subserves the organized, and that the times of the former are adjusted to the needs of the latter. An interesting chapter on this subject occurs in Whewell's Bridgewater Treatise on Astronomy and General Physics considered with reference to Natural Theology, from which we take the following paragraph. Referring to *the year* as the most important period measuring changes in the organic, and especially in the vegetable world, Professor Whewell says:

"In this interval of time the cycle of most of the external influences which operate upon plants is completed. There is also in plants a cycle of internal functions, corresponding to this succession of external causes. The length of either of these periods might have been different from what it is, according to any grounds of necessity which we can perceive. But a certain length is *selected* in both instances, and in both instances the same. The length of the year is so determined as to be adapted to the constitution of most vegetables; or the constitution of vegetables is so adjusted as to be suited to the length which the year really has, and unsuited to a duration longer or shorter by any considerable portion. The vegetable clock-work is so set as to go for a year. . . . Most plants, indeed, have some peculiar function adapted to each period of the year. The sap ascends with extraordinary copiousness at two seasons, in the spring and in the autumn, especially the former. The opening of the leaves and the opening of the flowers of the same plants are so con-

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stant to their times (their *appointed* times, as we are naturally led to call them), that such occurrences might be taken as indications of the times of the year. It has been proposed in this way to select a series of botanical facts which should form a calendar, and this has been termed a calendar of flora. Thus, if we consider the time of putting forth leaves, the honeysuckle protrudes them in the month of January; the gooseberry, currant, and the elder in the end of February, or beginning of March; the willow, elm, and lime tree in April; the oak and the ash, which are always the latest among trees, in the beginning or towards the middle of May. In the same manner the flowering has its regular time: the mezereon and snowdrop push forth their flowers in February, the primrose in the month of March; the cowslip in April; the great mass of plants in May and June; many in July, August, and September; some not till the month of October, as the meadow saffron; and some not till the approach and arrival of winter, as the laurestines and arbutus.

". . . It appears then that the functions of plants have by their nature a *periodical character*, and the length of the period thus belonging to vegetables is a result of their organization. Warmth and light, soil and moisture, may in some degree modify, and hasten or retard the stages of this period; but when the constraint is removed the natural period is again resumed. Such stimulants as we have mentioned are not the causes of this periodicity. They do not produce the varied functions of the plant, and could not occasion their performance at regular intervals except the plant possessed a suitable construction. They could not alter the length of the cycle of vegetable functions, except within certain very narrow limits. The processes of the rising of the sap, of the formation of proper juices, of the unfolding of leaves, the opening of flowers, the formation of the fruit, the ripening of the seed, its proper deposition in order for the production of a new plant—all these operations require a certain portion of time, and could not be compressed into a space less than a year, or at least could not be abbreviated in any very great degree. And, on the other hand, if the winter were greatly longer than it now is, many seeds would not germinate at the return of spring. Seeds which have been kept too long require stimulants to make them fertile. . . .

"The same thing is true of the *animal* creation. The pairing, nesting, hatching, fledging, and flight of birds, for instance, occupy each its peculiar time of the year; and together with a proper period of rest, fill up the twelve months. The transformations of most insects have a similar reference to the seasons, their progress and duration."

"As the time of the revolution of the earth in its orbit is adapted to the periodicity of organized bodies, so also is the time of *its revolution on its axis*." "*The terrestrial day*, and consequently the length of the cycle of light and darkness, being what it is, we find various parts of the constitution both of animals and vegetables, which have a periodical character in their functions, corresponding to the diurnal succession of

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external conditions; and we find that the length of the period, as it exists in their constitution, coincides with the length of the natural day. . . . . There is a diurnal period belonging to the constitution of vegetables; though the succession of functions depends in part on external stimulants, as light and heat, their periodical character is a result of the structure of the plant; and this structure is such that the length of the period, under the common influences to which plants are exposed, coincides with the astronomical day. . . . Animals also have a period in their functions and habits, as in the habits of waking, sleeping, eating, etc., and their well-being appears to depend on the coincidence of this period with the length of the natural day. We see that in the day, as it now is, all animals find seasons for taking food and repose which agree perfectly with their health and comfort. Some animals feed during the day, as nearly all the ruminating animals and land birds; others feed only in the twilight, as bats and owls, and are called crepuscular; while many beasts of prey, aquatic birds, and others, take their food during the night. Those animals which are nocturnal feeders are diurnal sleepers, while those which are crepuscular, sleep partly in the night and partly in the day; but in all the complete period of these functions is twenty-four hours. Man, in like manner, in all nations and ages, takes his principal rest once in twenty-four hours; and the regularity of this practice seems most suitable to his health, though the duration of time allotted to repose is extremely different in different cases. So far as we can judge, this period is of a length beneficial to the human frame, independently of the effect of external agents. In the voyages recently made into high northern latitudes, where the sun did not rise for three months, the crews of the ships were made to adhere with the utmost punctuality to the habit of retiring to rest at nine and rising at a quarter before six; and they enjoyed, under circumstances apparently the most trying, a state of salubrity quite remarkable. This shows that, according to the common constitution of men, the cycle of twenty-four hours is very commodious, though not imposed on them by external circumstances.

"The hours of food and repose are capable of such wide modifications in animals, and above all in man, by the influence of external stimulants and internal emotions, that it is not easy to distinguish what portion of the tendency to such alternations depends on original constitution. Yet, no one can doubt that the inclination to food and sleep is periodical, or can maintain with any plausibility that the period may be lengthened or shortened without limit. . . . The succession of exertion and repose in the muscular system, of excited and dormant sensibility in the nervous, appears to be fundamentally connected with the muscular and nervous powers, whatever the nature of these may be. The necessity of these alternations is one of the measures of the intensity of those vital energies; and it would seem that we cannot, without assuming the human powers to be altered, suppose the intervals of tranquillity which they require to

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be much changed. This view agrees with the opinion of some of the most eminent physiologists. Thus Cabanis notices the periodical and isochronous character of the desire of sleep, as well as of other appetites. He states also that sleep is more easy and more salutary in proportion as we go to rest and rise every day at the same hours; and observes that this periodicity seems also to have reference to the motions of the solar system."

"Now how should such a reference be at first established in the constitution of man, animals, and plants, and transmitted from one generation of them to another? If we suppose *a wise and benevolent Creator, by whom all the parts of nature were fitted to their uses and to each other*, this is what we might expect and can understand. On any other supposition such a fact appears altogether incredible and inconceivable."

Parallel with the adjustment of the revolutions of inorganic nature to those of *vital* periodicity, is the adaptation of the times of physical nature to those which regulate the order of the *moral* world. One principle pervades both adjustments, that of the harmonization of the movements of lower and higher departments—a harmonization involving the subservience of the movements of the world of inert matter to those of the world of physical and moral life.

We now proceed to investigate the highest department of this subject, or *the connection of Natural and Revealed Times.*

i. *Incommensurateness of the Primary Terrestrial Time Units.*

We are expressly told on the opening page of Scripture that the revolutions of the sun and moon were appointed by the Creator of the universe to be the measures of terrestrial time. "And God said, Let there be lights in the firmament of heaven, to divide the day from the night; and let them be for signs, and for seasons, and for days and years . . . and God made two great lights, the greater light to rule the day, and the lesser light to rule the night." The inspired Psalmist says of the Creator: "He appointed the moon for seasons; the sun knoweth his going down." In harmony with these

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Divine arrangements, time, from the dawn of history, has been universally measured by the triple course of days, months, and years.

Such is the general fact. But when we look more closely into the matter we observe that these three natural measures of time are not, and never have been, closely and systematically adhered to by mankind. *An artificial day has commonly been substituted for the natural day, an artificial month for the natural month, and an artificial year for the natural year.* The explanation of this remarkable fact evidently lies in the *incommensurateness* of these three fundamental measures of time.

The day, or the period of the alternation of light and darkness arising from the revolution of the earth on its axis is the primary measure of terrestrial time.

The month, or the interval between one new moon and another, occasioned by the moon's revolution in her orbit with reference to the sun, contains twenty-nine such days, together with twelve hours, forty-four minutes, and three seconds.

The year, or revolution of the sun in the Zodiac from one of the equinoxes to the same equinox again, measuring the course of the seasons, occupies 12 such months, together with 10 days, and 21 hours; or 365d. 5h. 48m. 49s. How many days make a month? How many months make a year? How many days make a year? The answer to each of these questions *involves a fraction*, and these fractions produce more practical difficulty in the adjustment of the calendar than can be easily conceived by the uninitiated. The efforts made to adjust the calendars employed in different countries and ages to the revolutions of nature have been of the most various kinds, and yet these efforts have failed, and the attempt to follow with accuracy the triple course of natural time has been practically abandoned by all the civilized nations of the world.

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The Egyptians and Babylonians long employed an equable year of 365 days, which constantly retrograded with reference to the seasons. The Greeks made sedulous attempts to adjust their calendar to solar and lunar revolutions, as in the 8-years calendar of Solon, and the 19-years calendar of Meton, but subsequently disregarded a strictly soli-lunar calendar altogether. The Romans, while following from the time of Julius Cæsar the motions of the equinoctial year, abandoned the attempt to regulate their month by the revolutions of the moon. The civil calendars of western nations, as built on the Roman calendar, employ months of varying lengths, none of which are accurately adjusted to the synodic lunar period. Mohammedan nations, while constantly following the guidance of the lunar month, have abandoned that of the solar year. In a word the attempt to conform the course of civil time to the triple time order of nature has been given up. Although summer days are longer than winter, our days in civilized Europe are always reckoned as of twelve hours duration, and our nights the same; and while the lunation is practically the same in length at all seasons, our months are 28 days, 29, 30, or 31, according to the place which they occupy in the course of the year. There is no harmony between the commencement of a month and the commencement of a lunation. In vain, as far as the practical guidance of the civil calendar is concerned, does the bright crescent of the new moon return to its proximity to the setting sun in the western sky, and increasing its distance from that luminary at every diurnal revolution, keep its appointed phases, and rule the fluctuations of the tides. We heed it not, save to admire the beauty of its aspect, and to note the changes of its phenomena. As far as the civil calendar is concerned, the guidance of the lunar revolution is only a perplexity, and a measure unsuited to our use.

Now, among the hundreds of calendars which have been employed by the nations of the world in ancient and modern

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times, there is one which stands distinguished from all the rest by the fact *that it had for its Author that all-wise Being who in the beginning fixed the times of solar and lunar revolutions, and adjusted the complex proportions by which they are marked.* THAT DIVINELY INSTITUTED CALENDAR CLOSELY AND CONSISTENTLY ADHERES TO THE REVOLUTIONS OF NATURE. Its day has ever been measured by the diurnal revolutions of the sun; its month has always been regulated by the return of the new moon; its year has always agreed with the course of the seasons. With the setting of the sun and the rising of the stars commences its diurnal reckoning; with the phasis, or appearing of the new moon, begins its month; and with the month, whose Passover ordinance was associated with the presentation of a sheaf of early spring-tide produce, commences its year; a year thus, not vague or errant as the Egyptian year, falling behind the year of the seasons, by the continual accumulation of differences, but constantly keeping pace with it in harmonious arrangement.

The strict adjustment of the days, months, and years, of the Jewish calendar to those of nature was a matter of *Divine enactment.* It is profoundly interesting to find that the time order of Nature which the Jews were required to follow *is suited* to the exigencies of revealed redemption chronology throughout all its extent. This adaptation, which becomes only the more apparent the more closely the subject is studied, involves the existence of *a series of cycles* harmonizing diurnal, monthly and annual revolutions. The higher Levitical and prophetic times are such cycles. Revealed times are adjusted to natural. The incommensurateness of days, months, and years creating discord in the civil calendar is the foundation of concord in the sacred calendar. Cycles of harmonization in the revolution of material nature measure periods of harmonization in the moral world.

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In the following pages we shall show that,—

The natural measures of terrestrial time—days, months, and years—are INCOMMENSURATE periods, whose fractional differences give rise by accumulation to a series of cycles, constituting a definite, complex, far-reaching course of time, which, while unsuited as a whole to the uses of the Civil Calendar, is ADJUSTED in all its parts and order to the times and seasons of revealed REDEMPTION CHRONOLOGY.

ii. *Cyclical character of the Prophetic Times.—Discoveries of M. de Cheseaux.*

The perplexities and difficulties which encumber the attempt to adapt brief periods of time to both solar and lunar movements, as in the Civil Calendar, disappear directly it is a question of longer intervals.

Short periods have to be artificially harmonized, larger ones harmonize themselves. There exist various periods which are naturally measurable both by solar years and lunar months, without remainder, or with remainders so small as to be unimportant.

Such periods are therefore SOLI-LUNAR cycles, and we shall henceforth speak of them as such. They harmonize with more or less exactness solar and lunar revolutions, and they may be regarded as divinely appointed units for the measurement of long periods of time, units of precisely the same *character* as the day, month and year (that is, created not by artificial means, but by solar and lunar revolutions), but of larger *dimensions*. They are, therefore, periods distinctly marked off as such as much as the fundamental revolutions on which our calendar is based; that is, they are natural measures of time furnished by the Creator Himself for human use.

The lunar cycle of nineteen years employed by the Greeks is one of these periods, and the ancient cycle of Calippus is

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another. Their discovery has always been an object with astronomers, as their practical utility is considerable. But it was exceedingly difficult to find cycles of any tolerable accuracy, especially cycles combining and harmonizing the day and the month with the year.

About the middle of last century a remarkable fact was discovered by a Swiss astronomer, M. de Cheseaux, a fact which is full of the deepest interest to both Jews and Christians, and which has never received, either at the hands of Bible students or scientists the attention which it merits.

The prophetic periods of 1,260 and 2,300 years, assigned in the Book of Daniel and in the Apocalypse as the duration of certain predicted events, *are soli-lunar cycles*, cycles of remarkable perfection and accuracy, but whose existence was entirely unknown to astronomers until, guided by the sacred Scriptures, M. de Cheseaux discovered and demonstrated them to be such. And further, the difference between these two periods, which is 1,040 years, *is the largest accurate soli-lunar cycle known.*

The importance of this discovery, and the fact that it is exceedingly little known, will explain our entering into a somewhat full account of the matter here. It is, besides, vital to our own more immediate subject, and was, indeed, the means of leading me to the present investigation.

M. de Cheseaux was the astronomer who observed and described the six-tailed comet of the year 1744. His book on the cyclical character of the prophetic times is out of print, difficult to procure, and even to consult. A copy of it exists in the library of the University of Lausanne, and another in the British Museum. It is entitled, "Memoires posthumes de M. de Cheseaux," and was edited and published by his sons in 1754. It contains "Remarques historiques, chronologiques, et astronomiques sur quelques endroits du livre de Daniel." The calculations of the astronomical part were submitted to Messrs. Mairan and Cassini, celebrated astrono-

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mers of the Royal Academy of Sciences at Paris, neither of whom called in question the accuracy of M. de Cheseaux's principles, or the correctness of his results. M. Mairan, after having carefully read his essay, said "that it was impossible to doubt the facts and discoveries it contained, but that he could not conceive *how* or *why* they had come to be embodied so distinctly in the Holy Scriptures." M. Cassini wrote, after having read the treatise and worked the problems, that the methods of calculating the solar and lunar positions and movements which M. de Cheseaux had deduced from the cycles of the book of Daniel were most clear, and "perfectly consistent with the most exact astronomy"; he wished the essay to be read before the Academy.

From the year 1754 to 1811 M. de Cheseaux's discoveries seem to have almost completely dropped out of sight. The stirring events of the French Revolution, which took place in the interval, may have caused his remarkable treatise to be forgotten. In the year 1811 Mr. William Cunningham, of Lainshaw, in Scotland, the author of several valuable works on prophecy, noticed a reference to de Cheseaux's discoveries in the writings of M. Court de Gibelin. Mr. Cunningham published the fact in an article which appeared in the *Christian Observer* for that year. In 1833 Mr. Cunningham published a letter in the *Investigator*, a monthly journal of prophecy, describing his *finding a copy of M. de Cheseaux's work.* "During the twenty-two years," says Mr. Cunningham, "which have elapsed since my communication to the *Christian Observer* I have sought for the work of M. de Cheseaux without success till the present year. A young relation of mine having last autumn gone to Heidelberg to complete his studies, I requested him to endeavour to procure the book for me. His enquiries among the booksellers were quite unavailing. At length, having become acquainted with a student from Lausanne, where the work was originally published, by his assistance search was made in the library of the

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university of that city. The first attempt was unsuccessful; but on a second and more careful search, the book was discovered, and a manuscript copy of that part which relates to the book of Daniel was taken for me, and is now in my possession."

The cyclical character of the prophetic periods of 1,260 and 2,300 years, and of the 1,040 years' period which measures their difference, was subsequently called in question by Mr. Frere, a well-known writer on prophecy. In a letter to the *Investigator* dated January, 1835, Mr. Cunningham says, "With regard to Mr. Frere's vain endeavour to shake the cyclical periods of de Cheseaux . . . if a scientific friend, who last summer favoured me with some remarks entirely confirmatory of the importance of the conclusions of M. de Cheseaux, and also *showed me the principle of calculating the cycles by continued fractions*, shall not take up Mr. Frere's paper, I will myself do it." The scientific friend here alluded to was believed by the editor of the *Investigator* to be Professor Birks, of Cambridge, who subsequently published in the pages of that journal a letter on the method of calculating these soli-lunar cycles by continued fractions, and also embodied in his valuable work on the elements of prophecy, published in 1843, a brief account of the astronomic character of the prophetic times. It was when reading this work of Professor Birks just after the fall of the Papal Temporal power in 1870, that my attention was arrested by that portion of it referring to these remarkable cycles, and I was consequently led to investigate their character with considerable care, and in doing so made a number of chronological discoveries, some of which I have since published in my writings on the fulfilment of prophecy. The astronomic portion of my work on "The Approaching End of the Age" was submitted, prior to its publication, to the criticisms of Professor Adams, of Cambridge. For this purpose I became Professor Adams' guest at the Observatory in Cambridge, and he verified De Che-

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seaux's calculations with reference to the prophetic times. I still possess the papers in his handwriting in which the calculations are worked out.

The following is a translation of M. de Cheseaux's account of his discovery of the astronomic character of the 1,260 and 2,300 years prophetic periods:

"We all know what a cycle is—that is to say, a period of time which harmonizes different celestial revolutions, comprehending, each of them, a certain number of times precisely, without fractional remainder. Such is, for example, the period of 4 Julian years, or 1,461 days, which, according to the ideas of the ancients, should contain exactly 4 solar *years* and 1,461 *days*; so that, supposing the sun on the 12th April, 1749, at noon in Paris to be in 22° 40′ of Aries, it should in 1,461 days, and at the same hour of midday, be found again precisely in the same position. The error is, as we know, 44′ of an hour. This cycle belongs to the 1st order—those which are employed to harmonize *solar years and days.*

"Cycles of the second kind are designed to bring *lunar years* or months into agreement with *solar years.* Such is Meton's cycle of 19 years. This ancient astronomer supposed that if the sun and moon were found, for example, on the first day of the year in conjunction at a certain point of the ecliptic, they ought to return again at the end of 19 solar years, or of 235 complete lunar months, to the same position without fractional remainder. The error of the cycle is about 2h. 3m., by which the solar year finishes earlier than the lunar.

"Cycles of the third kind are those which harmonize *solar days with lunar months*, as, for example, the cycle of 1,447 complete days, which comprehends at the same time 49 lunar months within 1½′ nearly.

"Lastly, we may make a fourth kind of cycle of those which unite the previous classes, and harmonize at the same time *the solar year, the lunar month, and the day.* Such ought to be the cycle of Meton, and still more the period of Calippus. The discovery of these cycles has been an object of the researches of almost all astronomers and chronologists, and it has seemed to them so difficult that they have almost laid it down as a fact that it was impossible to find those of the 4th class. It has been thus far a kind of philosopher's stone in astronomy, like perpetual movement in mechanics. There have been times when, seeking to assure myself effectually that it was not possible to succeed in the matter, I commenced my research by the second kind of cycle. Supposing a lunar month of 29d. 12h. 44m. 3s., the error is 7‴ by defect: in a solar year of 395d. 5h. 49m. the error is not more than 5s. by excess. I observed that in adding on the one side and on the other two periods of time proportional to these two revolutions, that is to say, 57″ to the first and 11′ to

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the second, their agreement became very approximately as 29d. 12¾h. to 365¼d., or as 2,835 quarters of an hour to 35,064 quarters of an hour; or in dividing these two numbers by 9, which is their common measure, as 315 to 3,896. This agreement was at the same time so simple and exact that, giving the lunar month its true length of 29d. 12h. 44m. 3s. 7‴, the resulting measure of the solar year is 365d. 5h. 48m. 16s., that is to say, 39s. only too short. From that I concluded that at the end of 315 solar years or 3,896 lunar months the sun and the moon should meet very nearly at the same point in the ecliptic. We find, in fact, that at the end of 315 Julian years 2d. 4h. 27m., or at the end of 115,051 days 4h. 27m., the sun and the moon return, to the 7th or 8th minute of a degree nearly, to the same point of the heaven from which they started. This 7′ or 8′ of a degree makes an error of 3h. 24m. as to the solar year, which ends 3h. 24m. after the lunar; that is to say, which recommences for the 316th time at the end of 115,051d. 7h. 51m. This difference of 3h. 24m. between the duration of 315 lunar years and that of 315 solar years, or the error of the 315 years' cycle, is to that of the cycle of Meton as $\frac{3^h\ 24^m}{315} : \frac{2^h\ 3^m}{19}$ or $\frac{8^h\ 12^m}{76}$ :: 3,838 : 38,745, or as 1 to 10; that is to say, that it is only the 10th part.

"*The cycle of* 315 *years thus found, I forthwith observed that it was the quarter of the* 1,260 *years period, or the* 3½ "*times*" *of Daniel*, ch. viii. 12, and xii. 7, compared with Apocal. xii. 6, 14; *and consequently that this prophetic period was itself a lunar cycle* of such a character that at the end of 1,260 Julian years — 10d. + 6h. 14m., or of 460,205d. 6h. 14m., the sun and the moon return within ½° nearly to the same point in the ecliptic, and that at the end of 1,260 Julian years — 10d. + 7h. 23m. or of 460,205d. 7h. 23m., the sun returns to the same point of the ecliptic exactly.

"This period has not only the advantage of comprehending a round number of years, a number sufficiently remarkable on account of the number of its aliquot parts [for 1,260 is divisible by 1, 2, 3, 4, 5, 6, 7, 9, 10, 12, 14, 15, 18, 20, 21, 28, 30, 35, 36, 42, 45, 60, 63, 70, 84, 90, 105, 126, 140, 180, 210, 252, 315, 420, 630; that is to say, by 35 divisors, which is, I believe, the largest number of divisors a number of this kind can have], but also that of containing a number of days whose length occupies about the mean between those of the lunar and solar years comprised in this number.[1]

"The agreement of this period, destined by the Holy Spirit to designate civil periods, with the length of most remarkable periods of celestial

[1] The length of the solar year which I employ here is that which results from a perfect cycle of the fourth kind, of which we will speak presently, and which occupies the mean between the different determinations of the most able modern astronomers.

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movements, *led me to conjecture that it might also be thus with the period of* 2,300 *years.* I examined then this last period by astronomic tables, and I found that at the end of 2,300 Gregorian years less 6h. 14m., or of 840,057d. less 6h. 14m., the sun and the moon return within half a degree nearly, to the place from which they started; and that at the end of 840,057d. 7h. 23m. the sun returns exactly to the same point of the ecliptic; *from which it follows that the prophetic period of* 2,300 *years* (remarkable also by the number of its aliquot parts, and because it contains a complete number of cycles) *was also a cyclical period, and this cyclical period was also so perfect* that although 30 times longer than the Calippic period, its error is, however, much less than double, since it only extends to 13h. 37m., and being proportionally subdivided in the period of 70 years, it is reduced to 29m., that is to say, to the 17th part of the error of the Calippic period, which I said just now was 8h. 12m.

"*The equality of the errors of this cycle of* 2,300 *years with those of the preceding led me to conclude that their difference, that is,* 1,040 *years, ought to be entirely exempt from error, and should give a perfect cycle, and one all the more remarkable because it unites at the same time the three kinds of cycles, and forms consequently this famous cycle of the fourth kind* vainly sought so long, and ultimately believed to be chimeric or impossible. Having then examined this period of 1,040 years by the tables of the most celebrated modern astronomers, I found that it held about the mean between them, as one may see in this little table:

According to Messrs.—	The sun makes in 379,852 entire days 1,040 complete revolutions with reference to first point of Aries.	The moon makes in 379,852 entire days 12,863 complete revolutions with reference to the sun.
Cassini	+2′ 1″	+1′ 59″
Flamsteed	−1′ 39″	+7′ 40″
De La Hire . . .	+3′ 33″	+3′ 30″
Bouillaud	−5′ 18″	−11′ 30″
Tycho	+7′ 23″	+4′ 20″
Certain others . .	−1′ 30″	−8′ 37″
Mean	+0′ 45″	−0′ 26′

These differences are absolutely insensible for so large a period, and it would be impossible that the best astronomic tables should be exempt from them, on account of the imperfection of the ancient observations upon which they are founded, from which it seems that we should conclude, according to all appearance, that this period of 1,040 years, or solar revolutions, indicated in a certain way by the Holy Spirit, is a cycle at once solar, lunar, and diurnal, perfectly exact. . . . May I be permitted meanwhile to give to this cycle the name of THE DANIEL CYCLE?"

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iii. THE MESSIANIC TIME SYSTEM.

Having given some account of De Cheseaux's discoveries, we now proceed to consider the Time System of Revelation, to which the chronology of Nature is adjusted, or the system of times and seasons which centres in the Advent, Life, Death and Resurrection of our Lord Jesus Christ. In doing so we shall come across a remarkable law connected with *the ratio of Vital Periodicity to Messianic and Historic Times* which has hitherto escaped the observation of chronologers.

I. *Central Chronological Elements.*

The central chronological elements in the Messianic time system are two in number: the period which relates to the growth and development of the *physical nature* assumed by our Lord Jesus Christ, and that which relates to the duration of *His ministry, and time of His death.* These central elements are *the month of years*, and *the week of years.* The first of these is a *growth period*; the second is a period connected with *religious or sacred ordinances.*

(i.) *The Month.*

Under the Levitical law, the month of days (30 days) and the month of years (30 years) were recognised by Divine appointment as *growth periods.* The Levites were numbered "from a month old and upwards" (Numb. iii. 22), and the first-born redeemed "from a month old" (Numb. xviii. 16); the period of service appointed for the Levites was "from 30 years old and upwards" (Numb. v. 3). The latter measure is mentioned seven times in this relation in Numbers v. We observe then in the first place that the chronology of Incarnation conformed to this natural law: our Lord was 30 years of age at His baptism, and the commencement of His ministry (Luke iii. 23); in other words, His age at that date was a month of years.

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(ii.) *The Week.*

Under the Law the seventh day was set apart as sacred, and also the seventh year. The entire course of Levitical chronology was measured by weeks of days, and weeks of years. The week of years (7 years) and the month of years (30 years) are similarly units in the Prophetic Times. The "70 weeks" of prophecy are 70 times 7 years; and the "42 months" of prophecy are 42 times 30 years, or 1,260 years.

The ministry and atoning death of Christ were connected in their chronology with the week of years. Sixty-nine prophetic "weeks" extended from the Persian edict to restore Jerusalem to the commencement of Christ's ministry; His death took place "in the midst" of the 70th week; His ministry was therefore limited to 3½ years, or half a week of years.

II. *Vital Periodicity.*

The system of vital periodicity harmonizes with the central elements of the Messianic time system.

The 30 days and 30 years of the Revealed time system are, as we have just shown, vital cycles.

The 70 years period of revealed chronology is a vital cycle, the *normal* period of human life; while the 33 years period which occupies the centre of Revealed Chronology is also a vital cycle, the *average* period of human life.

(i.) *The 70 years Vital Cycle.*

"The days of our years are threescore years and ten." (Psalm xc. 10). Solon says "the life of man seldom exceeds 70 years." The leading elements of this period are 30 years, and 40 years; the growth period, and the period of maturity.

From its relation to the normal period of human life we may name the 70 years period *The Bios Cycle.*

Historic chronology is based on vital chronology. The duration of the captivity of Judah was prophetically an-

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nounced as 70 years. "Thus saith the Lord, That after seventy years be accomplished at Babylon I will visit you, and perform my good word toward you in causing you to return to this place. For I know the thoughts that I think towards you, saith the Lord, thoughts of peace, and not of evil, to give you an expected end." This prediction of Jeremiah was pondered by the prophet Daniel as living in the time of the captivity. "In the first year of his reign" (that of Darius) "I Daniel, understood by books the number of the years, whereof the word of the Lord came to Jeremiah the prophet, that He would accomplish seventy years in the desolations of Jerusalem." Daniel was led by the prediction to special prayer and supplication, which brought further revelations of the Divine promises of mercy. Ten times seven years, the normal lifetime of a generation, such was the divinely appointed limit of the period during which Jerusalem should lie waste, and Judah remain an exile in the land of the Gentile conqueror. The period of affliction was bridged by the lives of many who shared in the subsequent restoration. "Many of the priests and Levites, and chiefs of the fathers, who were ancient men, that had seen the first house, when the foundation of this house was laid before their eyes, wept with a loud voice; and many shouted aloud for joy, so that the people could not discern the noise of the shout of joy from the noise of the weeping of the people; for the people shouted with a loud shout, and the noise was heard afar off."[1]

(ii.) *The* 33 *years Vital Cycle.*

It is a well-known fact that "the *average* of human life is about thirty-three years." "Mortality is subject to a law the operation of which is as regular as that of gravitation. Nothing is more proverbially *uncertain* than the duration of human life when the maximum is applied to the individual;

[1] Ezra iii. 12, 13.

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but there are few things less subject to fluctuation than the average duration of life in a multitude of individuals." "The average duration of life in Great Britain at the present time is forty-one years, ranging from 26 (formerly only 24) in Liverpool, and 37 in the Metropolis, up to 45 in Surrey. In France the duration is 40 years; in London 39; and in other countries progressively downwards until *the average duration throughout the world is found to be only* 33 *years.* The mean term of existence is nearly the same in all countries, at all periods, and among all classes of society."[1]

As the measure of the average life period of a generation, we may be permitted to call the 33 years period *The Gennea Cycle*, deriving the name from the Greek word γενεά, a generation.

III. *Ratio of Vital Periodicity to Historic.*

The solar year measures a cycle of vital changes in animal and vegetable life. Not only have all plants a yearly cycle of changes, but vast numbers of plants are annuals, the whole of their existence, including germination, growth, reproduction, and decay, being comprised in a single season. *The ratio of their annual vital cycle to the average period of human life is that of* 1 *to* 33; or one year to thirty-three years.

Chronological Law.

The remarkable law to which we now call attention is that this ratio prevails in the proportion which exists between the life periods in the *individual* man, and those seen in the average *duration of the dynasty, nation, or dispensation.* As the average life period in the individual is the annual life cycle increased thirty-three fold, so the historic periods connected with the dynasty, race, or nation are the individual life periods increased thirty-threefold. The same ratio pre-

[1] "Insurance Guide and Handbook," Walford, pp. 63, 64.

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vails throughout, and links the development of the plant, the man, and the nation.

The application of this ratio to revealed Redemption chronology casts considerable light upon periods whose true character would otherwise be involved in obscurity, and tends to connect together revealed Times and Seasons, as intimately related to each other, and to the most central period of the whole, that of the earthly lifetime of Jesus Christ, Messiah, Immanuel. Glancing first at the Jewish dispensation, which extended from the birth of Abraham to the advent of Christ, we observe that the interval from the call of Abraham to the birth of Isaac was 25 years, and that this period is the nine months gestation period in the development of the individual *increased thirty-three fold.* The 400 years which followed, measuring *the childhood of the Jewish people*, or their history as a family up to their emergence as a nation at the Exodus, is simply the well-known twelve years period of childhood recognised in Scripture *increased thirty-three fold.* The 1,000 years which measured the growth of the Jewish nation to maturity, and similarly measures the growth-period of Gentile nations, is the 30 years of the growth of the individual to maturity *increased thirty-three fold.* The 1,650 years from the Exodus of Israel to the advent and death of Christ is the 50 years period of individual life prominent in the Jubilee cycle *increased thirty-three fold.* The 2,000 years of the Jewish dispensation is the 60 years period of growth and toil in the life of the individual *increased thirty-three fold.* The 2,156 years of that dispensation, reckoned from its earliest starting-point, is 66 years of individual life *increased thirty-three fold*, and its bisection 1,078 years is the 33 years *average* life period in the individual *increased thirty-three fold.* In the Prophetic Times the great period of 2,300 years measuring the domination of several Gentile empires, and the long-continued "treading down" of the sanctuary, is the 70 years period of

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the normal duration of human life *increased thirty-three fold.* The still larger prophetic period of "7 Times," the great "Calendar of Prophecy," measuring the joint duration of the four Gentile empires of Babylon, Persia, Greece and Rome, from the era of their rise to that of their fall, is the 75 years in the life of the individual (age of Abraham at his call) *increased thirty-three fold.* As the history and chronology of the Jewish and Christian dispensations are to a large extent analogous, the thirty-three fold ratio of historic to individual development applies to the latter equally with the former; and indeed is conspicuous.

The times of Christian history, like those of Jewish, bear a thirty-three fold ratio to life periods in the individual. The Christian dispensation is the antitype of the Jewish, and consists, like it, of three principal periods, an introductory, a central, and a terminal. These periods may be distinguished as the Martyr period, the Mediæval, and the Reformed. The first four centuries in each case measured the childhood of the people, and were the twelve years of the childhood of the individual enlarged thirty-three fold. The thousand years of central or Mediæval history in each case may be regarded as a thirty years period enlarged on the same scale; and the initial and central periods together as 12 + 30, or 42 years similarly enlarged. The five centuries reformation period in Jewish history answers to the five centuries in Christian history, which extend from Wickliffe, or Huss and Jerome of Prague—the dawn of the Reformation—to the close of the nineteenth century, or first third of the twentieth, the terminus of the Prophetic Times. Five centuries are fifteen years enlarged on the thirty-three fold scale.

The eleven centuries duration of Papal Temporal power from A.D. 756 to A.D. 1870 (1,114 years) are the thirty-three years period measuring the life of Christ enlarged thirty-threefold in the reign of anti-Christ. The 1,260 years of prophecy are the 37 years central eclipse period in the Babylonish cap-

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tivity (period of the captivity of Jehoiachin) enlarged thirty-three fold; and the 1,335 years of prophecy are the 40 years Wilderness period enlarged on the same scale.

One scale of Times is kept to throughout. The historic times are life periods in the history of the individual, enlarged on one and the same scale—the scale on which the life period of the plant, which lasts for a season, is enlarged in the *average* life period of man, which was the life period of "the Son of Man."

IV. *Adjustment of Epact Chronology to the* 33 *fold ratio.*

All soli-lunar epact is the thirty-third of the period in which it occurs. Whether the period be large or small, whether it be one year or a thousand years, the epact or difference between solar and lunar revolutions is a thirty-third of the whole.

It follows from this that the *conjoint revolutions of the sun and moon are adjusted to the ratio which connects vital with historic times.*

Epact chronology keeps pace with the 33 fold vital ratio century after century. In every period of 33 years the epact is one year. Every 33 years a new generation of human beings is brought into existence, and with it a new year of epact. For every generation there is a cycle of celestial revolutions with its sum of solar and lunar influences.

We noted that the ratio of vital periodicity in the individual to vital periodicity in the nation, dynasty, or dispensation is as 1 to 33; that, for example, the 400 years initiatory period in national development is the 12 years life period in the individual enlarged 33 fold. We now observe the corresponding fact that *in* 400 *years the Epact is* 12 *years.* It is thus throughout the entire range of historic times. The 1,000 years period in national development is the 30 years life cycle enlarged 33 fold, and *in* 1,000 *years the Epact is* 30 *years.* The 1,335 years prophetic period is the 40 years

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wilderness period enlarged 33 fold, and *in* 1,335 *years the epact is* 40 *years.* The 2,300 years prophetic period is the 70 years life period enlarged 33 fold, and *in* 2,300 *years the epact is* 70 years. The 2,520 years prophetic period is the 75 years life period enlarged 33 fold, and *in* 2,520 *years the epact is* 75 *years.*

Whatever be the individual life period enlarged 33 fold in the chronology of history, the epact of the historic period equals the individual life period thus enlarged. The 33 fold ratio reigns throughout. The development of the plant, the man, and the nation are regulated by it, and the conjoint movements of sun and moon adjusted to its measures.

V. *Astronomic Measure of the* 33 *fold Epact Ratio.*

As measured by primary periods the 33 fold ratio is the ratio of *one revolution of the moon around the earth to* 1,000 *revolutions of the earth on its axis;* in other words, it is the ratio of

1 MONTH TO 1,000 DAYS.

Both month and day are primary measures of time. Decimal numbers have their foundation in Nature and Revelation. The epact ratio is based on primary natural revolutions and decimal measures. It is the ratio of one revolution of the moon to a thousand revolutions of the earth.

VI. *Modification of the* 1 *month to* 1,000 *days Epact Ratio in harmony with Messianic and Prophetic Times.*

30 days multiplied by 33·33 are 1,000 days. The epact ratio, however, is not 33·33, but 33·585; and this measure adjusts the development of epact to Messianic chronology, and the 2,300 years prophetic period.

(i.) The modification of the epact ratio of 1 month to 1,000 days to 1 synodic month to 991–2 solar days, *is adjusted to the production of a new* 19 *years Metonic cycle, with its* 7 *months of epact in the Prophetic period of* 2,300 *years.*

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The Metonic cycle is 6,940 days. It has 7 months of epact, or 7 intercalary months. From this it follows that the rate of epact growth is not 7 months to 7,000 days, but 7 months to 6,940 days. This period of 6,940 days is 60 days less than 7,000 days. What is this 60 days deficiency? To what period of completeness is it adjusted? It is *a fraction of a new Metonic cycle.* But in what period is the new cycle developed? The answer is, *In the Prophetic period of* 2,300 *years.*

We have seen that 2,300 years is a cycle of the synodic month and solar year, adjusted to the correction of the 2 hours error of the Metonic cycle. Now we see that it is also adjusted to the correction of the 60 days deficiency of the Metonic cycle, by which it falls short of 7,000 days.

The 60 days deficiency is not a defect, but a perfection. It is an adjustment to octave redemption chronology. It leads to the production of a new Metonic cycle in 2,300 years, with its 7 months of epact. Had the rate of epact growth been exactly 7 months in 7,000 days, then since 2,300 years are 840,000 days, the epact in that period would have been 840 months. But it is 847 months. The extra 7 months of epact belong to the new Metonic cycle arising from the 60 days deficiency.

(ii.) The modification of the epact ratio to 1 synodic month in 991-2 days is *adjusted to the measurement of the sacred* 3 *days interval in the Messianic cycle connected with the death, burial, and resurrection of Messiah.*

The Messianic cycle is, as we have stated, 33·585 years. In this period the epact amounts to one complete solar year.

On analysing this solar year of epact we find that *three days of the period* belong to, or arise from, the correction of the epact ratio which we are considering. *The additional fraction of epact which grows to a new* 7 *months of epact in* 2,300 *years, amounts to a new three days of epact in* 33·585 *years, or the Messianic cycle.*

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Years.	1m. 11s. error.	Years.	11m. 11s. error.	Years.	11m. 11s. error.
	Days.		Days.		Days.
1	·089875	13	1·168375	25	2·246875
2	·179750	14	1·258250	26	2·336750
3	·269625	15	1·348125	27	2·426625
4	·359500	16	1·438000	28	2·516500
5	·449375	17	1·527875	29	2·606375
6	·539250	18	1·617750	30	2·696250
7	·629125	19	1·707625	31	2·786125
8	·719000	20	1·797500	32	2·876000
9	·808875	21	1·887375	33	2·965875
10	·898750	22	1·977250	33·585	3·018451
11	·988625	23	2·067125		
12	1·078500	24	2·157000		

VII. *Adjustmeut of Solar Epact to the 70 years Cycle.*

The divergence of the Solar or Tropical year (year of the seasons) from the normal prophetic year of 360 days is adjusted to produce *one complete year of epact in the seventy years normal period of human life.*

The epact in this case is not soli-lunar, but simply solar. It arises not from the divergence of lunar measures from solar, but from the divergence of one form of the solar year from another. The prophetic form, 360 days, may be considered the *typical* form. The divergence of the tropical year from this measure is 5¼ days, a difference which accumulates to an entire year in 70 years, or more accurately, to 367 days or a prophetic year and a week :—

70 Tropical years . .	25,566·9568	days.
70 Prophetic years . .	25,200	"
Difference or epact .	366·9568	

We have already traced the adjustment of soli-lunar revolutions to the 33 years *Gennea* cycle. We now observe the analogous adjustment of purely solar revolutions to the 70 years *Bios* cycle.

Thus while soli-lunar revolutions are adjusted to the *average* life period, solar revolutions are adjusted to the *normal*

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This double adjustment forms a leading feature in epact chronology.

The development of solar epact in the series of Prophetic Times is in perfect harmony with their character.

(*a*) As solar epact amounts in the 70 years prophetic period to 1 year, so in the 40 years prophetic period it accumulates to 7 months.

40 Tropical years	. .	14,609·6896 days.
40 Prophetic years	. .	14,400 "
Difference or epact	.	209·6896

7 prophetic months are 210 days. While 70 years measured the Babylonish captivity, 40 years measured the wanderings of Israel in the wilderness.

(*b*) In 490 years the Solar epact is 7 Prophetic years and 7 weeks :—

490 Tropical years	. .	178,968·6976 days.
490 Prophetic years	. .	176,400 "
Difference or epact	.	2,568·6976

Seven Prophetic years and seven weeks are 2,520 + 49 = 2,569 days. The relation of this epact to Messianic chronology is deeply interesting and important. In the "70 weeks" of Prophecy extending from the Persian edict of Artaxerxes "to restore Jerusalem" to "Messiah the Prince," the final week of years contains the ministry and death of Messiah. *This final week of years proves on examination to be the Solar epact of the whole period.* Further, the interval from the resurrection of Messiah to the advent of the Spirit (referred to in the prophecy, Dan. ix. 24) is seven weeks of days, and the solar epact in 490 years is 7 Prophetic years and 7 weeks of days.

(*c*) In the prophetic period of 1,260 years (mentioned seven times in Daniel and Revelation) the Solar epact amounts to 6,606 days, or 18 Prophetic years and 18 weeks.

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The contrast between the 7 *Prophetic years and* 7 *weeks* of the 490 years prophetic period, connected with the advent of Christ, and the 18 *Prophetic years and* 18 *weeks* connected with Antichrist, is complete:—

1,260 Tropical years .	.	460,205·2224 days.
1,260 Prophetic years	.	453,600 „
Difference or epact	.	6,605·2224

18 Prophetic years and 18 weeks are 6,480 + 126 = 6,606 days.

(*d*) In the Prophetic period of 1,335 years the Solar epact amounts to 1,000 weeks:—

1,335 Tropical years .	.	487,598·3904 days.
1,335 Prophetic years	.	480,600 „
Difference or epact	.	6,998·3904

The epact here is only 1½ days less than 7,000 days, or 1,000 weeks.

(*e*) In the Prophetic period 2,300 years the Solar epact amounts to 33 Solar years:—

2,300 Tropical years	. .	840,057 days.
2,300 Prophetic years	. .	828,000 „
Difference or epact	.	12,057

33 Tropical years are 12,053 days.

The 490 and 2,300 years prophetic periods are closely connected. Both relate to "the Sanctuary." The two periods commence together, and the lesser is contained in the larger. The lesser period extends to the advent and death of Messiah. In both periods the Solar epact is Messianic in its measures. In the lesser it measures the 7 years which contained the ministry of Messiah, the final "week" of years in whose "midst" He was "cut off"; while in the larger period the Solar epact equals the 33 complete years of Messiah's earthly lifetime.

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(*f*) In the Prophetic period of 2,595 years (2,520+75 years), the Solar epact amounts to 37 years, and 3 months :—

2,595 Tropical years .	.	947,803·612 days.
2,595 Prophetic years .	.	934,200 „
Difference or epact	.	13,603·612

37 Tropical years are 13,513·96 days. 37 Tropical years and 3 Prophetic months = 13,513 + 90 days = 13,603 days.

VIII. *Relation of the* 2,300 *years Prophetic period to the most Central and Fundamental Cycles connected with the two forms of Epact.*

The Prophetic period of 2,300 years occupies a central position in relation to Solar and Soli-lunar epact.

It is the primary cycle arising from the intermultiplication of the Gennea and Bios cycles. We have noted that while the *normal* life period is 70 years, the *average* life period is 33 years, and that solar epact is adjusted to the larger cycle, and soli-lunar epact to the lesser.

The primary period arising from the intermultiplication of the 33 and 70 years cycles is 2,300 years.

33 years are 12,000 days (+ 53*d.*).

2,300 years are 70 times 12,000 days (+ 57*d.*).

The Soli-lunar epact in 2,300 years is 70 lunar years 7 months.

The Solar epact in 2,300 years is 33 solar years.

From this it follows that 2,300 years is the *pierre de l angle* of Soli-lunar and Prophetic periods viewed as cycles of epact.

IX. *Foundation for a correct Calendar in the* 2,300 *years Cycle.*

This Prophetic period is adapted in a very remarkable way to calendar uses.

A very simple and correct calendar of the course of days, months, and years, may be founded on the 2,300 years cycle,

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by reckoning the non-intercalary months as alternately 29 and 30 days; reckoning the intercalary months as alternately 30 and 31 days; and adding 23 days for the 23 centuries.

2,300 solar years contain 28,447 synodic months, of which 847 are intercalary, or epact months. 2,300 years are 840,057 days:—

			Days.
27,600	13,800 non-intercalary months of 29d. each	=	400,200
	13,800 " " 30 "	=	414,000
847	423 intercalary months of 30 days each	=	12,690
	424 " " 31 "	=	13,144
	23 days additional for the 23 centuries	=	23
			840,057

Had the Jews only known the astronomical character of the 2,300 years period contained in their own Scriptures, from what a mass of complex calendar adjustments, and erroneous adaptations they would have been saved!

The complexity of the Jewish calendar is notorious. M. Bouchet, the principal computer in the French "Bureau des Longitudes," in his valuable treatise on "Hemerology," says of the Jewish calendar: "Les règles exigent une grande attention, à cause des multiplications de nombres complexes qu'elles renferment" (p. 243). In spite of all their efforts to adjust their calendar to solar and lunar revolutions, its errors in the course of centuries are considerable. M. Bouchet states that the 19 years cycle employed by the Jews (6,939d. 16h. 595s.) advances "toujours en s'éloignant davantage des conjunctions moyennes, à raison de 1 jour en 16½ cycles environ, ou bien de 6j. 980s. en 100 cycles, ou 1,900 années judaïques. Par suite de ce mouvement les conversions[1]

[1] "Conversions," or cardinal turning-points; the equinoxes and solstices separated from each other in the Jewish year by intervals of 91d. 7h. 504s.

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israélites *non-seulement s'écartent de plus en plus de l'époque moyenne des saisons*, comme on le voit par la place qu'elles occupent dans le calendrier grégorien, *mais encore elles parcourent, lentement et progressivement, tous les jours et les mois de l'année civile de l'ère des juifs.* C'est donc avec beaucoup de raison que dans les Annuaires du culte israélite les conversions sont désignées simplement par le nom du mois auquel elles appartiennent, sans qu'il soit fait aucune mention des saisons. Ainsi l'on dit la Conversion de Tisseri, pour dire la Conversion d'Automne; la Conversion de Tébeth, pour dire la Conversion d'Hiver; la Conversion de Nissan, pour dire la Conversion de Printemps; et la Conversion de Tamouz, pour dire la Conversion d'Été. Plus tard et dans la suite des siècles, la Conversion de Tisseri deviendra la Conversion de Hesvan . . . et de même pour les autres conversions et les autres mois de l'année judaïque" (p. 279).

May we be allowed to suggest to the Jewish people that at the next reformation of their calendar, they should adopt for the basis of its construction the period of 2,300 years revealed in their own Scriptures, but hitherto neglected and ignored.

X. *The Arithmetical and Astronomical character of the Prophetic Period* 2,520 *years, or "Seven Times."*

In my work on "The Approaching End of the Age," I have shown that the period 2,520 years, or "seven times," is the great dispensational week, measuring the "times of the Gentiles"; the foretold period of the four Gentile empires, Babylon, Persia, Greece, and Rome, whose course and close precede the advent of the everlasting kingdom of the Son of God. This is in some respects the most important of all the prophetic periods, and the oft-repeated 1,260 years of prophecy form its second half.

(*a*) *Arithmetical character of* 2,520 *years.* "With regard to this period we note in the first place that 2,520 is arithmetic-

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ally a most remarkable number; a number as distinct from all other numbers as the circle is from all other forms. It is not a number that could possibly have been selected by chance, or put inadvertently into the important position it occupies in the prophetic word. Its selection in preference to all other numbers is an indication of intelligent design which candour cannot fail to recognise. The omniscient God has deliberately passed by all other conceivable numbers, any one of which might have been made the basis of chronologic prophecy, that He might select to occupy this position a number which is *sui generis*, altogether unique, one which stands forth by its very nature as a king among other numbers, conspicuous and paramount. 2,520 *is the least common multiple of the first ten numbers*; in other words, it is the first in the entire series of numbers that is exactly divisible by all the first ten numerals."

1	is contained	in it	2,520	times	without remainder
2	"	"	1,260	"	"
3	"	"	840	"	"
4	"	"	630	"	"
5	"	"	504	"	"
6	"	"	420	"	"
7	"	"	360	"	"
8	"	"	315	"	"
9	"	"	280	"	"
10	"	"	252	"	"

"Now *ten*, be it remembered, is a natural numerical radix, employed in Scripture, and in world-wide use, so that the first *ten* numbers form a complete and fundamental series, and their least common multiple is a great fundamental number in arithmetic. It is like a complex crystal, capable, from its very nature, of numerous regular divisions, and it is adapted to harmonize in one several series of periods of different orders and magnitudes in a way that no other con-

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ceivable number could do. Is it by chance that *this* is the number of years of the great 'seven times' which is the vertebral column of prophetic chronology?"

(*b*) *Astronomical character of* 2,520 *years.* "Perfect arithmetically, 2,520 years is also perfect astronomically. It contains 132 lunar, or Metonic cycles, in which the epact amounts to 77 lunar years. Over and above these cycles there is a remainder of twelve years, which raises the epact of the entire period to 75 solar years. Now here we are confronted with another startling fact, a fact which it will puzzle the ingenuity of sceptics to account for; a fact which must have been unknown to Daniel, for the state of astronomic science in his day (nearly six centuries B.C.) was such that he could not have been acquainted with it; yet a fact which is absolutely indisputable, and which a very short calculation will demonstrate. In the last chapter of Daniel the angel intimates to the prophet, in answer to his chronological inquiries, that while the scattering of the power of the holy people should terminate at the end of the second half of the 2,520 years, *yet that there should be additions of thirty and forty-five years*, before the era of full blessedness would arrive (Dan. xii. 11–13). In other words, to the long period of 2,520 years *Scripture adds a brief period of seventy-five years*, and as we have just seen, *astronomy does the same.* The difference between 2,520 lunar and the same number of solar years is seventy-five years. In other words, the seventy-five years added in the prophecy is exactly equal to the epact of the whole 'seven times.' If 2,520 lunar and the same number of solar years begin together, the former will run out seventy-five years before the latter. The seventy-five years added to the 'Times of the Gentiles' are equal to the epact of that great dispensational period.

"Was it by chance that Daniel lit on these two periods so widely dissimilar, and which yet bear to each other this remarkable astronomic relation? Impossible! as impossible

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as that he could either have known that 2,300 years (ch. viii.) was a soli-lunar cycle, or that he could have selected by *chance* the exact number of years in that cycle as the period of the restored temple, and subsequent desolation of the sanctuary. Such coincidences are not the work of chance. Such Bible statements must be accepted with reverential awe, as evidences that the Divine mind which planned the universe, inspired also the sacred book."[1]

XI. *Application of the* 33 *fold Vito-historic Ratio to the period of the Four Prophetic Empires.*

Having found the Messianic clue to Prophetic and Historic times, and to Epact chronology, we now proceed to apply it to the Times of the four great Empires of Prophecy.

Calendar of the "Times of the Gentiles."

On applying this chronological scale to the times of the four empires of Babylon, Persia, Greece, and Rome, which conjointly constitute the "Times of the Gentiles," or the times of Gentile dominion co-temporaneous with Jewish subjection, dispersion, and desolation, we observe that what might be called the life period of the great "Image" of Gentile sovereignty (Dan. ii.), as measured from the Babylonian era of Nabonassar to the terminus of the Prophetic Times, is the "fourscore years" of individual life, increased thirty-three fold; and that the principal divisions in the life period of the "Image" correspond with those in the life period of the individual. In the following table, or "Calendar of the Times of the Gentiles," the growth of epact to lunar and solar years is traced in parallel columns, and the corresponding B.C. and A.D. dates given.

I. *Childhood of the "Image."* This includes the Babylonian and Persian periods, and extends to the commence-

[1] Author's work, "The Approaching End of the Age," pp. 440–443.

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ment of the Syro-Grecian power, the era of the Seleucidæ; a twelve years period enlarged thirty-three fold.

2. *Manhood of the "Image."* The Roman Empire, as succeeding the Grecian, appears in the 20th year of the Image; the complete subjugation of the Jews by the Romans in the time of Vespasian occurs in the 25th year (lunar form), and the famine and pestilence crisis in the time of the Emperor Gallienus, in the 30th year.

3. *Middle age of "Image."* The division of the Eastern and Western Empires of Rome, A.D. 364, occurs in the 33rd year; the fall of the Western Roman Empire in the 37th year; and the rise of the Mohammedan power in the 42nd year. The accuracy of the last date is noteworthy; 42 lunar years of epact were completed, as the table shows, in A.D. 622–57, and the Hejira era is July 16th, A.D. 622. At this point begin the 42 prophetic "months," extending to A.D. 1844, the 1,260th year of the Hejira era, at which date a decree of religious toleration was wrung from the Ottoman Government by English intervention, dated March 21st (1st of Nisan). The 42 "months" ($30 \times 42 = 1{,}260$ years) of the Mohammedan power begin at the point where the "Image" completes its first 42 years, both periods being in lunar form. The year A.D. 1268, when the Papal Dominion attained its utmost height, the contest between the house of Hohenstaufen and the Pope having terminated in favour of the latter, fell in the 60th year of the "Image," a most important era in its history.

4. *Old age of the "Image."* The abrogation of Papal Supremacy in England, A.D. 1534, occurred in the 70th year of the "Image" (Lunar form), and the end of the house of Tudor, and beginning of that of Stuart, marking the close of the Reformation era, was in the 70th year of the "Image" in Solar form. The first termination of the great prophetic period of "Seven Times," or 2,520 years, in Solar form, took place in A.D. 1774, the date of the accession of Louis XVI.,

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the starting point in the history of the French Revolution. This occurred in the 75th year of the "Image." The table shows 75 solar years of epact in 2518·875 years, but 75 solar years of epact *do not take the form of complete months* (928 *lunations*) *in less than* 2,520 *years*, constituting this period a cycle of the solar year and lunar month.

In 1840 a marked era in the renaissance of the Jewish people, the "Image" of Gentile sovereignty reached its 77th year; and it is now in its 78th year, verging on the "four-score years" to which strength of constitution may extend the "three-score years and ten" of its life period.

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CALENDAR

OF

"THE TIMES OF THE GENTILES."

The "fourscore years" of the "Image."

Solar Years.	Epact Lunar Years.	B.C.	Solar Years.	Epact Solar Years.	B.C.	
		747			**747**	*Babylonian Empire.* Era of Nabonassar, B.C. 747.
32·585	1	**714**	33·585	1	**713**	Sennacherib's invasion of Judah.
65·170	2	**681**	67·170	2	**679**	Esarhaddon invasion. Manasseh's captivity, B.C. 676–5.
97·755	3	**649**	100·755	3	**646**	
130·340	4	**616**	134·340	4	**612**	Nebuchadnezzar. Seventy years captivity from B.C. 605.
162·925	5	**584**	167·925	5	**579**	
195·510	6	**551**	201·510	6	**545**	*Persian Empire.* Cyrus, B.C. 536.
228·095	7	**518**	235·095	7	**511**	Xerxes, B.C. 485.
260·680	8	**486**	268·680	8	**478**	Ezra Commission, B.C. 457.
293·265	9	**453**	302·265	9	**444**	*Nehemiah's Commission.* Commencement of "70 weeks," in lunar form, from B.C. 444.
325·850	10	**421**	335·850	10	**411**	
358·435	11	**388**	369·435	11	**377**	**YOUTH.**
391·020	12	**355**	403·020	12	**343**	*Grecian Empire.* Alexander the Great, B.C. 336.
423·605	13	**323**	436·605	13	**310**	*Era of Seleucidæ*, B.C. 312.
456·190	14	**290**	470·190	14	**276**	
488·775	15	**258**	503·775	15	**243**	
521·360	16	**225**	537·360	16	**209**	
553·945	17	**193**	570·945	17	**176**	Antiochus Epiphanes.
586·530	18	**160**	604·530	18	**142**	**MANHOOD.**
619·115	19	**127**	638·115	19	**108**	*The Roman Empire.*
651·700	20	**95**	671·700	20	**75**	Pompey, capture of Jerusalem, B.C. 62.
684·285	21	**62**	705·285	21	**41**	Augustus Cæsar, B.C. 27.
716·870	22	**30**	738·870	22	**8**	Nativity, B.C. 6.

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Solar Years.	Epact Lunar Years.	A.D.	Solar Years.	Epact Solar Years.	A.D.	
749·455	23	3	772·455	23	26	Baptism and ministry of Messiah. Autumn of A.D. 25.
782·040	24	36	806·040	24	60	Jewish War begins, A.D. 66.
814·625	25	68	839·625	25	93	Vespasian conducts Jewish War, A.D. 67.
847·210	26	101	873·210	26	127	Jewish desolation complete, A.D. 135.
879·795	27	133	906·795	27	160	Marcus Aurelius, A.D. 161.
912·380	28	166	940·380	28	194	
944·965	29	198	973·965	29	227	
977·550	30	231	1007·550	30	261	Gallienus, Famine and Pestilence. Diminution of the human species, A.D. 260.
1010·135	31	264	1041·135	31	295	
1042·720	32	296	1074·720	32	328	
1075·305	33	329	1108·305	33	362	Dedication of Constantinople, A.D. 330.
1107·890	34	361	1141·890	34	395	Alaric, Commences ravages, A.D. 395.
1140·475	35	394	1175·475	35	429	
1173·060	36	427	1209·060	36	463	End of Western Empire, A.D. 476.
1205·645	37	459	1242·645	37	496	
1238·230	38	492	1276·230	38	530	Justinian, A.D. 527.
1270·815	39	524	1309·815	39	563	
1303·400	40	557	1343·400	40	597	
1335·985	41	589	1376·985	41	630	**MIDDLE AGE.**
1368·570	42	622	1410·570	42	664	Hejira Era, A.D. 622. July 16. Vitalianus, A.D. 657.
1401·155	43	655	1444·155	43	698	
1433·740	44	687	1477·740	44	731	Charles Martel, A.D. 732.
1466·325	45	720	1511·325	45	765	Pepin confers Exarchate and Pentapolis upon the Pope, A.D. 756.
1498·910	46	752	1544·910	46	798	
1531·495	47	785	1578·495	47	832	
1564·080	48	818	1612·080	48	866	
1596·665	49	850	1645·665	49	899	
1629·250	50	883	1679·250	50	933	
1661·835	51	915	1712·835	51	966	
1694·420	52	948	1746·420	52	1000	
1727·005	53	981	1780·005	53	1034	
1759·590	54	1013	1813·590	54	1067	Gregory VII. (Hildebrand), A.D. 1073.

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Solar Years.	Epact Lunar Years.	A.D.	Solar Years.	Epact Solar Years.	A.D.	
1792·175	55	**1046**	1847·175	55	**1101**	
1824·760	56	**1078**	1880·760	56	**1134**	
1857·345	57	**1111**	1914·345	57	**1168**	
1889·930	58	**1143**	1947·930	58	**1201**	
1922·515	59	**1176**	1981·515	59	**1235**	
1955·100	60	**1209**	2015·100	60	**1269**	Papal dominion at its utmost height, A.D. 1268. Coincidence of Solar Perigee and Winter Solstice, A.D. 1267.
1987·685	61	**1241**	2048·685	61	**1302**	
2020·270	62	**1274**	2082·270	62	**1336**	**OLD AGE.**
2052·855	63	**1306**	2115·855	63	**1369**	
2085·440	64	**1339**	2149·440	64	**1403**	
2118·025	65	**1372**	2183·025	65	**1437**	End of Eastern Roman Empire, A.D. 1453.
2150·610	66	**1404**	2216·610	66	**1470**	
2183·195	67	**1437**	2250·195	67	**1504**	The Reformation, A.D. 1517.
2215·780	68	**1469**	2283·780	68	**1537**	
2248·365	69	**1502**	2317·365	69	**1571**	
2280·950	70	**1534**	2350·950	70	**1604**	Abrogation of Papal Supremacy in England, A.D. 1534.
2313·535	71	**1567**	2384·535	71	**1638**	House of Stuart, A.D. 1603.
2346·120	72	**1600**	2418·120	72	**1672**	Commonwealth, A.D. 1649–1653. English Revolution, A.D. 1688.
2378·705	73	**1632**	2451·705	73	**1705**	
2411·290	74	**1665**	2485·290	74	**1739**	
2443·875	75	**1697**	2518·875	75	**1773**	Dedication of St. Paul's, A.D. 1697. *French Revolution.* Louis XVI., 1774.
2476·460	76	**1730**	2552·460	76	**1806**	
2509·045	77	**1763**	2586·045	77	**1840**	1260th year of Hejira, A.D. 1844. Revolution, A.D. 1848.
2541·630	78	**1795**	2619·630	78	**1873**	Fall of Papal Temporal Power, A.D. 1870.
2574·215	79	**1828**	2653·215	79	**1907**	
2606·800	80	**1860**	2686·800	80	**1940**	

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XII. *The adjustment of the Planetary periods to Redemption Chronology.*

Nothing can be more remote from current popular thought than the idea that there exists an adjustment of the movements of the planets to the times and seasons of Redemption Chronology, and yet nothing can be more certain than that the planetary revolutions are so adjusted. The surprise which many will feel at this statement will diminish considerably when they reflect on the intimate relation which subsists between the various worlds which constitute the solar system, and the reasonableness of the view that the movements of the whole system should be adjusted to that sacred time order to which the revolutions of the sun and moon are certainly and demonstrably adjusted. All the various planets are closely related as grouped around, and dependent on the same solar centre, as governed by the same law of gravitation, as revolving in analogous elliptic orbits, and in the same direction, as situated at distances from the sun which are regulated by a common proportion, as moving in obedience to the law of equal areas in equal times, and above all, as harmonizing with each other in the ratio of their periods to their distances. The astronomer Bode, in 1778, drew attention to a previously discovered law that the distances of the planets observe the following proportion,—write the numbers 0, 3, 6, 12, 24, 48, 96, each of which, excepting the first, is double the number which precedes it. Add 4 to each of these, making the series 4, 7, 10, 16, 28, 52, 100; these numbers, with the exception of 28, are proportional to the distances from the sun of the planets Mercury, Venus, the Earth, Mars, Jupiter, Saturn, while the number 28 corresponds with the distance of the minor planets, discovered since Bode's time, and situated between Mars and Jupiter. This will be seen by comparing the foregoing series of numbers with the following

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Actual distances of the Planets.

Mercury.	Venus.	Earth.	Mars.	Minor Planets.	Jupiter.	Saturn.
3·9	7·2	10	15·2	27·7	52·9	95·4

The numbers in Bode's series are tri-quaternary, or combine threefold with fourfold measures.

The third law of Kepler, that "the squares of the periodic times of any two planets are to each other in the same proportion as the cubes of their mean distances from the sun," establishes beyond all question the existence of a family relation among the planets. "Of all the laws," says Herschel, "to which induction from pure observation has ever conducted man this *third law* (as it is called) *of Kepler* may justly be regarded as the most remarkable and the most pregnant with important consequences. When we contemplate the constituents of the planetary system from the point of view which this relation affords us, it is *no longer mere analogy* which strikes us—no longer a general resemblance among them, as individuals *independent* of each other, and circulating about the sun, each according to its own peculiar nature, and connected with it by its own peculiar tie. The resemblance is now perceived to be a true *family* likeness; they are bound up in one chain, interwoven in one web of mutual relation and harmonious agreement, subjected to one pervading influence, which extends from the centre to the furthest limits of that great system, of which all of them, the earth included, must henceforth be regarded as members." [1]

The planets consist of two principal groups: (1) the four lesser planets, Mercury, Venus, the Earth and Mars; (2) the four larger planets, Jupiter, Saturn, Uranus, and Neptune. The asteroids circulate between these two groups, and include about 400 comparatively minute bodies. Taking the planets in their actual order, we shall point out in the first

[1] "Outlines of Astronomy," p. 488.

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place the adjustment of the movements of Mercury to revealed chronology.

I. MERCURY.

The diameter of Mercury is one-third that of the earth, and its distance from the sun 40 millions of miles. Its comparative proximity to the sun, and our high latitude in northern countries, render it difficult for us to watch the movements of this planet, or indeed to see it at all, except at rare intervals.

(1) *7 years' cycle.*

As Mercury revolves round the sun in three months it makes four revolutions in a solar year. There is a surplus fraction which accumulates to an extra revolution in seven solar years. Thus Mercury makes its first cycle with the sun in $7 \times 4 + 1 = 29$ revolutions. The cycle is an imperfect one whose error adjusts the movements of the planet more closely to the 33 years' Messianic cycle.

(2) *33 years' cycle.*

The adjustment in this cycle is so close that transits of Mercury very commonly happen at intervals of 33 years.

While 33 years measure 12,053 days, 137 equinoctial periods of Mercury occupy 12,052 days, and 104 synodic periods of the planet, within a fraction of a day, the same. The following tables show the growth of 137 equinoctial, and of 104 synodic periods, to 12,052 days, or only one day less than 33 solar years, and also the occurrence of transits of Mercury at intervals of 33 years.

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CYCLE OF 137 EQUINOCTIAL PERIODS OF MERCURY WITH 33 SOLAR YEARS (12,053 DAYS).

1	87·968	36	3166·863	70	6157·790	104	9148·717
2	175·936	37	3254·832	71	6245·759	105	9236·685
3	263·905	38	3342·800	72	6333·727	106	9324·654
4	351·873	39	3430·769	73	6421·695	107	9412·622
5	439·842	40	3518·737	74	6509·664	108	9500·591
6	527·810	41	3606·705	75	6597·632	109	9588·559
7	615·779	42	3694·674	76	6685·601	110	9676·528
8	703·747	43	3782·642	77	6773·569	111	9764·496
9	791·715	44	3870·611	78	6861·538	112	9852·464
10	879·684	45	3958·579	79	6949·506	113	9940·433
11	967·652	46	4046·548	80	7037·474	114	10028·401
12	1055·621	47	4134·516	81	7125·443	115	10116·370
13	1143·589	48	4222·484	82	7213·411	116	10204·338
14	1231·558	49	4310·453	83	7301·380	117	10292·306
15	1319·526	50	4398·421	84	7389·348	118	10380·275
16	1407·494	51	4486·390	85	7477·317	119	10468·243
17	1495·463	52	4574·358	86	7565·285	120	10556·212
18	1583·431	53	4662·327	87	7653·254	121	10644·180
19	1671·400	54	4750·295	88	7741·222	122	10732·148
20	1759·368	55	4838·264	89	7829·190	123	10820·117
21	1847·337	56	4926·232	90	7917·159	124	10908·085
22	1935·305	57	5014·200	91	8005·127	125	10996·054
23	2023·274	58	5102·169	92	8093·096	126	11084·022
24	2111·242	59	5190·137	93	8181·064	127	11171·990
25	2199·210	60	5278·106	94	8269·033	128	11259·959
26	2287·179	61	5366·074	95	8357·001	129	11347·927
27	2375·147	62	5454·043	96	8444·969	130	11435·896
28	2463·116	63	5542·011	97	8532·938	131	11523·864
29	2551·084	64	5629·979	98	8620·906	132	11611·832
30	2639·053	65	5717·948	99	8708·875	133	11699·801
31	2727·021	66	5805·916	100	8796·843	134	11787·769
32	2814·989	67	5893 885	101	8884·812	135	11875·738
33	2902·958	68	5981·853	102	8972·780	136	11963·706
34	2990·926	69	6069·822	103	9060·749	137	12051·675
35	3078·895						

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CYCLE OF 104 SYNODIC PERIODS OF MERCURY WITH 33 SOLAR YEARS (12,053 DAYS).

1	115·877	27	3128·691	53	6141·506	79	9154·320
2	231·754	28	3244·569	54	6257·383	80	9270·198
3	347·632	29	3360·446	55	6373·261	81	9386·075
4	463·509	30	3476·324	56	6489·138	82	9501·953
5	579·387	31	3592·201	57	6605·016	83	9617·830
6	695·264	32	3708·079	58	6720·893	84	9733·708
7	811·142	33	3823·956	59	6836·771	85	9849·585
8	927·019	34	3939·834	60	6952·648	86	9965·463
9	1042·897	35	4055·711	61	7068·526	87	10081·340
10	1158·774	36	4171·589	62	7184·403	88	10197·218
11	1274·652	37	4287·466	63	7300·281	89	10313·095
12	1390·529	38	4403·344	64	7416·158	90	10428·973
13	1506·407	39	4519·221	65	7532·036	91	10544·850
14	1622·284	40	4635·099	66	7647·913	92	10660·728
15	1738·162	41	4750·976	67	7763·791	93	10776·605
16	1854·039	42	4866·854	68	7879·668	94	10892·482
17	1969·917	43	4982·731	69	7995·546	95	11008·360
18	2085·794	44	5098·609	70	8111·423	96	11124·237
19	2201·672	45	5214·486	71	8227·301	97	11240·115
20	2317·549	46	5330·364	72	8343·178	98	11355·992
21	2433·427	47	5446·241	73	8459·055	99	11471·870
22	2549·304	48	5562·118	74	8574·933	100	11587·747
23	2665·182	49	5677·996	75	8690·810	101	11703·625
24	2781·059	50	5793·873	76	8806·688	102	11819·502
25	2896·936	51	5909·751	77	8922·565	103	11935·380
26	3012·814	52	6025·628	78	9038·443	104	12051·257

TABLE SHOWING THAT 33 YEARS IS THE *FIRST* CYCLE IN WHICH THE EQUINOCTIAL PERIOD OF MERCURY CLOSELY AGREES WITH THE SOLAR YEAR.

Solar Years.	Days in Solar Years.	Equinoctial Periods of Mercury.	Days in Periods of Mercury.	Solar Years.	Days in Solar Years.	Equinoctial Periods of Mercury.	Days in Periods of Mercury.
1	365	4	351	18	6574	75	6597
2	730	8	703	19	6939	79	6949
3	1095	12	1055	20	7304	83	7301
4	1461	16	1407	21	7670	87	7653
5	1826	21	1847	22	8035	91	8005
6	2191	25	2199	23	8400	95	8357
7	2556	29	2551	24	8765	100	8796
8	2921	33	2902	25	9131	104	9148
9	3287	37	3254	26	9496	108	9500
10	3652	41	3606	27	9861	112	9852
11	4017	46	4046	28	10226	116	10204
12	4382	50	4398	29	10592	120	10556
13	4748	54	4750	30	10957	125	10996
14	5113	58	5102	31	11322	129	11347
15	5478	62	5454	32	11687	133	11699
16	5843	66	5805	33	12053	137	12052
17	6209	71	6245				

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TRANSITS OF MERCURY AT 33 YEARS' INTERVALS.

1618	Nov. 4	And 33 years after in	1651	Nov. 2
1628	May 5	" "	1661	May 3
1631	Nov. 6	" "	1664	Nov. 4
1644	" 8	" "	1677	" 7
1664	" 4	" "	1697	" 2
1674	May 6	" "	1707	May 5
1677	Nov. 7	" "	1710	Nov. 6
1690	" 9	" "	1723	" 9
1707	May 5	" "	1740	May 2
1710	Nov. 6	" "	1743	Nov. 4
1723	" 9	" "	1756	" 6
1736	" 10	" "	1769	" 9
1743	" 4	" "	1776	" 2
1753	May 5	" "	1786	May 3
1756	Nov. 6	" "	1789	Nov. 5
1769	" 9	" "	1802	" 8
1782	" 12	" "	1815	" 11
1789	" 5	" "	1822	" 4
1799	May 7	" "	1832	May 5
1802	Nov. 8	" "	1835	Nov. 7
1815	" 11	" "	1848	" 9
1835	" 7	" "	1868	" 4

(3) 40 *years' cycle.*

126 synodic periods of Mercury measure 14599·62 days, while 40 equable years of 365 days each (the primitive or Egyptian year) are 14,600 days.

(4) 400 *years' cycle.*

In 400 equable years the number of days is 146,000, while 1,260 synodic periods of the planets are 145,996 days, or 400 years within 4 days. In the revealed time system 400 years and 1,260 years are both prophetic periods measuring the duration of bondage, captivity, or affliction in the experiences of the natural and spiritual Israel. The 400 years of Israel in Egypt were doubtless measured by Egyptian years. But 400 Egyptian years are 1,260 periods of Mercury, and therefore analogous with 1,260 solar years; the ratio of the one to the other being the ratio of the synodic period of Mercury to the solar year.

(5) 2,520 *years' cycle.*

2,520 tropical years agree with 7,943 synodic periods of

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Mercury. This cycle is sufficiently close to yield the measures of Mercury's synodic period correctly to two places of decimals.

2,520 solar years ("Seven Times") are 920410·4 days, while 7,943 synodic periods of Mercury are 920414·7 days. The synodic period obtained by dividing 2,520 tropical years, or 920410·4448 days, by 7,943, is 115·8769 days, which differs only slightly from the recognised astronomic measure of Mercury's synodic period, 115·877 days.

As the sidereal and equinoctial periods of the planet can be obtained from the synodic, the whole of these can be derived from the 2,520 years' cycle. In the following table the measures of these periods yielded by the 2,520 years' cycle are compared with those given in the "Annuaire du Bureau des Longitudes," 1893.

	Synodic P.	Sidereal P.	Equinoctial P.
	days.	days.	days.
Annuaire . . .	115·877	87·969	87·968
2,520 years' cycle	115·8769	87·9689	87·968

Grouping together the foregoing facts, we observe an adjustment of the revolutions of Mercury to the 7 years' Levitical and Prophetic cycle (the "week" of years); to the 33 years' Messianic cycle (so close as to be a transit period); and to the 40 years', 400 years', and 2,520 years' prophetic periods; and that 400 Egyptian years are 1,260 synodic revolutions of Mercury.

II. VENUS.

Venus is nearly the size of the earth, and its mean distance from the sun 67 millions of miles, or 25 millions of miles less than that of the earth. It is, next to the sun and moon, the brightest object in the heavens, and, as rising at certain

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seasons just before the sun, is known as "the bright and morning star."

(1) 8 *years' cycle.*

While the primary cycle of Mercury with the sun is adjusted to the 7 years' Levitical and Prophetic period, Venus makes its first cycle with the sun in 8 years. Thus its primary cycle is not septenary but octave, or palingenetic. 8 tropical years contain 2921·9 days, and 5 synodic periods of Venus 2919·6 days. From this adjustment it follows that Venus "shows the same appearances to us regularly every eight years; her conjunctions, elongations, and times of rising and setting, being very nearly the same, on the same days, as before." For example, in 1870, July 5, Venus rose at 1h. 37m. in the morning, and set at 5h. 5m. in the afternoon. Eight years later, in 1878, July 2, Venus rose at 1h. 35m., and set at 5h. 5m. Venus was in the ascending node in 1870 on August 18, and in 1878, on August 17. In 1870 the inferior conjunction of Venus with the sun took place on February 23, and in 1878 on February 21; the greatest elongation West in 1870 occurred on May 4, and in 1878 on May 2. As adjusted to the 8 years' cycle the movements of Venus harmonise with soli-lunar chronology, in which the 8 years' cycle (the Octaëteris) occupies a fundamental position.

(2) 33½ *years' Messianic cycle.*

We have stated that the sun gains on the moon one complete revolution in 33·585 years: in other words, that 33·585 lunar years differ from the same number of solar years by one solar year. There is reason to think that 33½ years measured the interval from the Nativity of our Lord to His Ascension.[1]

This period equals 21 revolutions of the "bright and morning star" (7 × 3).

[1] See "Approaching End of the Age," p. 529.

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33·585 years are 12,266 days; and 21 synodic periods of Venus 12262·3 days. Thus the life period of our Lord, as measured by the revolutions of "the bright and morning star," consists, like the Apocalyptic life period of the Church, of thrice seven intervals.

(3) 235 *years' cycle.*

The first cycle of 33·585 years with the solar year is in seven such periods, or 235 years (33·585 × 7 years = 235·09 years). In this interval there are 147 synodic revolutions of Venus, and also 382 equinoctial; and so close is the agreement of Venus and the sun as to lead to a recurrence of transits.

"70 weeks," or 490 years, and 235 years are analogous periods. In the former the solar epact is 7 years, and in the latter the soli-lunar epact is 7 years.

490 years of 360 days each fall short of 490 solar years by 7 years; and 235 lunar years fall short of 235 solar years by 7 years. These two periods occupied a terminal place in the Jewish dispensation; the former extending from the Persian restoration to the death of Messiah and the foundation of the Christian Church, and the latter from the cleansing of the Sanctuary by Judas Maccabæus, B.C. 165, to the destruction of the Temple and end of the Dispensation, in A.D. 70; or more accurately to the triumphal entry of Titus into Rome, commemorating the fall of Jerusalem in A.D. 71.

(4) 40 *years' cycle.*

40 Egyptian years (of 365 days) are 14,600 days, while 25 synodic periods of Venus are only two days less, or 14,598 days.

In the 120 years of the life of Moses there were 75 revolutions of the morning star. The age of Abraham at his call (75 years), of Moses at the entrance of Israel into Canaan (75 synod. periods of Venus), and the duration of the seven "Times of the Gentiles" at the future restoration of Israel (75 soli-lunar cycles) are analogous periods.

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(5) "70 *weeks*" *of Venus.*

From the Ezra starting-point of the "70 weeks" of prophecy, B.C. 457, 69½ "weeks" or more accurately 500 lunar years (485 solar) extend to the year of the Crucifixion, A.D. 29; while from the Nabonassar starting-point of the four empires, B.C. 747, 69½ "weeks" of Venus, or 485 revolutions of the planet, extend to the same terminus. 485 synodic periods of Venus are 775 solar years, which is the interval from B.C. 747–A.D. 29. Thus the 485 and 775 solar years from the Ezra and Nabonassar starting-points to the year of the crucifixion are *analogous periods* as measured by the revolutions of the Earth and Venus.

(6) 1,260 *equinoctial periods of Venus.*

It is remarkable that 69½ "weeks" of the synodic revolutions of Venus, or 485 synodic revolutions, equal 1,260 equinoctial periods of the planet.

From this it follows that the 775 years from the Nabonassar era to A.D. 29 were 1,260 periods, or years, of Venus.

We have already pointed out that the interval from the Nabonassar era to the fall of the Western Roman Empire, A.D. 476, is 1,260 lunar years; it follows that the intervals from the Nabonassar, or Babylonian starting-point of the four empires to the year of the crucifixion, and that to the fall of the Western Roman Empire, are *analogous periods*, as measured by lunar years and the revolutions of Venus, and harmonise in their measures with the 1,260 years of prophecy.

(7) 1,260 *synodic periods of Venus.*

While the equinoctial period of Venus is 224·695 days, its synodic period is 583·92 days; 1,260 of the former are 775 solar years (+53 days), and 1,260 of the latter, 2,015 solar years.

We have just seen that 1,260 *equinoctial* revolutions of the planet Venus extend from the Nabonassar era to A.D. 29, the year of the crucifixion of Christ; we now note the fact that

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1,260 *synodic* revolutions of the planet Venus extend from the same starting-point to A.D. 1268, the year of the culmination of the power of the Papal Antichrist. This was the date of the coincidence of the Solar Perigee with the winter solstice, the central year of the dark middle ages. Thus from the Nabonassar starting-point of the four empires the periods extending to the crucifixion of Christ and the culmination of the power of Anti-Christ are *analogous periods*, as measured by the equinoctial and synodic revolutions of Venus.

(8) *Periods of Venus derived from the* 235 *years' cycle.*

Comparison of the periods of Venus derived from the 235 years' cycle with those given in the "Annuaire du Bureau des Longitudes."

	Synodic p.	Sidereal p.	Equinoctial p.
Annuaire	583·921	224·700	224·695
235 years' cycle . .	583·890	224·696	224·690

III. MARS.

Mars has a diameter of 4,000 miles, or half that of the earth, and is 141 millions of miles distant from the sun. Its orbit is remarkable for great eccentricity, the planet being only 128 millions of miles from the sun at perihelion, while it is 154 millions of miles distant at aphelion, a difference of no less than 26 millions of miles. The great eccentricity of its orbit has a very marked effect on the apparent magnitude and brightness of the planet at different times.

(1) 47 *years' cycle.*

"The revolution of Mars round the sun and the revolution of the Earth around the sun are so related that Mars accomplishes 17 revolutions in very nearly 32 years, or with still greater accuracy, 25 revolutions in 47 years. From the last-mentioned numbers it appears that if the Earth and Mars occupy a certain position at a given date, they will in 47 years

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be again found in the same relative position, Mars having in the interval performed 25 revolutions."[1] Thus "a favourable opposition of Mars" will be followed in 47 years by another "favourable opposition."

In the history of Israel, while 40 years measured the wilderness wanderings, the interval from the exodus to the division of the land was 47 years. The seven years difference between the two was occupied by the conquest of Canaan. It is interesting to observe that these important periods in Redemption history, 40 and 47 years, are analogous as measured by the revolutions of Venus and Mars, the former being, as we have already shown, 25 synodic periods of Venus, and the latter, 25 equinoctial periods of Mars.

(2) 235 *years' cycle.*

As already indicated, this period forms a cycle of the Earth and Venus so accurate as to measure the recurrence of transits of Venus across the solar disc. It also forms a less perfect cycle of the Earth and Mars, being five 47 years' cycles.

The opposition of Mars in 1877 (September 5th) was remarkable for the brightness of the planet, as it occurred only nine days after Mars passed its perihelion. A similarly favourable opposition may be expected 47 years later, in 1924. Tracing back the cycle, five such favourable oppositions follow the initial one in the 235 years extending from A.D. 1689 to 1924.

(3) *Ratio of the period of the Earth to the period of Mars.*

We have seen that 1,260 years are a prophetic period both in their solar and lunar forms: and that 2,300 years are also a prophetic period. There is a curious and suggestive similarity between the ratio of 1,260 lunar years to 2,300 solar, and the ratio of the period of the Earth to that of Mars.

1,260 lunar years are 1,223 solar, while 2,300 solar years

[1] "Elements of Astronomy." Ball, p. 269.

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are 1,223 periods of Mars. From this it follows that the ratio of the period of the Earth to the period of Mars is as 1,260 lunar years to 2,300 solar, or as the ratio of one of the two leading prophetic periods to the other.

(4) 2,445 *years' cycle.*

2,445 solar years agree with 2,520 lunar, or "seven times" in lunar measure. This period also harmonises with 1,300 revolutions of Mars.

	days.
2,520 lunar years	893,005·04
2,445 tropical years	893 017·27
2,445 sidereal years	893,051·77
1,300 Eq. p. Mars	893,073·53

(5) 1,260 *equinoctial periods of Mars.*

2,300 solar years are 2,370 lunar, while 2,370 solar are 1,260 equinoctial periods of Mars.

(6) 1,260 *synodic periods of Mars.*

1,260 synodic periods of Mars are 982,719 days, or 2,690 tropical years and 218 days.

The termination of the prophetic "seven times" (2,520 years) reckoned from the 19th of Nebuchadnezzar is A.D. 1934. The interval from "the year that King Uzziah died," —that of Isaiah's vision of the desolation of Israel during the "Times of the Gentiles," B.C. 757—to A.D. 1934 is 2,690 years, or 1,260 synodic periods of Mars.

(7) *Periods of Mars derived from* 2,520 *lunar years.*

Comparison of the periods of Mars derived from the 2,520 lunar years' cycle with those given in the "Annuaire du Bureau des Longitudes."

	Synodic p.	Sidereal p.	Equinoctial p.
	days.	days.	days.
Annuaire	779·936	686·979	686·929
2,520 lu. y. cycle . .	779·939	686·977	686·9269

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IV. JUPITER.

This gigantic planet exceeds the earth 1,300 times in its volume. Its diameter is no less than 85,000 miles, and owing to rapid rotation the equatorial diameter is greater than the polar by 5,000 miles. The mean distance of Jupiter from the sun is 480 millions of miles, and twelve years are occupied in a single revolution of the planet round the sun.

(1) 2,300 *years' cycle.*

2,106 synodic periods of Jupiter are accomplished in 840,049 days, or only eight days less than 2,300 tropical years; the prophetic period of 2,300 years is therefore a cycle of the revolutions of the Earth and Jupiter.

(2) 1,335 *years.*

The prophetic periods, 1,260 lunar years, 1,335 solar, and 2,300 solar, are respectively, 1,223 tropical years, 1,223 synodic periods of Jupiter, and 1,223 periods of Mars, and therefore are analogous as measured by revolutions of the Earth, Jupiter, and Mars.[1]

(3) 2,520 *years.*

210 periods of 12 years each exactly equal 2,520 years, or "seven times." As the period of Jupiter is 52 days shorter than 12 years, 210 revolutions of the planet are 30 years less than 2,520 years; in other words, *Jupiter loses one prophetic month in "seven times."* (2,520 years are 84 prophetic "months," and 210 periods of Jupiter are 83.)

	days.
2,490 trop. years	909,453
210 Eq. p. Jupiter	909,425
Difference	28

[1] 1,260 lu. y. = 1,222½ sol.; 1,335 trop. y. = 1,222 syn. p. Jupiter + 162 days. Synod. p. = 398·884 days.

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(4) *Periods of Jupiter derived from the* 83 *prophetic months' cycle.*

	Synodic p.	Sidereal p.	Equinoctial p.
	days.	days.	days.
Annuaire	398·884	4,332·588	4,330·596
83 prophet. months .	398·8829	4,332·721	4,330·729

V. SATURN.

The planet Saturn is next to Jupiter in magnitude. Its volume is 700 times that of the Earth. The mean distance of Saturn from the sun is 886 millions of miles, and the period occupied by its revolution, 29½ years. This magnificent planet is surrounded by a pair of rings whose interior diameter is about 100,000 miles. It is furnished with eight moons.

(1) *Analogy of the period of Saturn to the lunar month.*

The ratio of the synodic month to the period of Saturn is the year-day ratio; the one is 29½ days, the other, 29½ years.

Lunar months.	days.	Sidereal Periods of Saturn.	years.
1.	29·5	1.	29·4
2.	59·0	2.	58·9
3.	88·5	3.	88·3
4.	118·1	4.	117·8
5.	147·6	5.	147·2
6.	177·1	6.	176·7
7.	206·7	7.	206·2

(2) *Similarity of the period of Saturn to the prophetic month.*

Thirty lunar years (or the prophetic "month" in lunar form) approximate to the period of Saturn.

	years.
Sidereal period of Saturn	29·458
30 lunar years	29·107

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(3) *The* 2,520 *lunar years' cycle of Saturn.*

The difference between 30 lunar years, and the period of Saturn, accumulates in 2,520 lunar years, or "seven times" lunar, to *one complete revolution.*

Period of Saturn .	29·458
30 lunar years . .	29·107

·351 × 83 = 29·1 *y.* or 30 lunar years.

We pointed out the fact that Jupiter *loses* one prophetic month in 2,520 solar years; we now note that Saturn *gains* one prophetic month in 2,520 lunar years.

This double adjustment of the two greatest planets in the system to the period of "seven times" is remarkable. The adjustment of Saturn to 2,520 lunar years, or 2,445 solar, is so close as to make that period a cycle of the revolutions of the planet with the solar and lunar year.

2,520 lunar years . . .	893,005 days.
2,445 solar years . . .	893,017 „
83 periods of Saturn . . .	893,015 „

(4) *Periods of Saturn derived from the* 2,520 *lunar years' cycle.*

	Synodic p.	Sidereal p.	Equinoctial p.
Annuaire . . .	378·091	10,759·236	10,746·952
2,520 lu. y. cycle	378·091	10,759·244	10,746·960

VI. URANUS AND NEPTUNE.

These two distant planets have been discovered in modern times by telescopic observation, and mathematical calculation. The former is 1,781 millions of miles from the sun, and occupies 84 years in its revolutions; the latter, 2,791 millions of miles from the sun, and its period 165 years. Uranus was discovered in 1781, and Neptune 65 years later, in 1846.

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There are 15 revolutions of Uranus in the prophetic period 1,260 years (84 × 15 = 1,260), and 30 in 2,520 solar years, or "seven times." The period of Neptune nearly equals five times 33 years (33 × 5 = 165), and the average period of the planets is 33 years.

SIDEREAL PERIODS OF THE PLANETS.

	Years.
Mercury . . .	0·240
Venus	0615
Earth	1·000
Mars	1·880
Planetoids . . .	4·000
Jupiter	11·862
Saturn	29·458
Uranus	84·018
Neptune . . .	164·622
Mean . . .	33·07

The mean period of the planets, and the mean, or average period of human life is the same,—the 33 years' Messianic cycle.

In conclusion, we showed that the revolutions of the *sun and moon* are adjusted to the 33 and 33·585 years' Messianic cycles, and the 1,260, 2,300, and 2,520 years' cycles. We now find the *periods of the planets* to be adjusted to the same: Mercury to 33 years, which is also the average period of the planets; Venus to 33·585 years; Jupiter to 2,300 years; Mars and Saturn to 2,520 lunar years; Mercury and Uranus to 2,520 solar years; and that the ratio of the period of the earth to that of Mars is as the ratio of 1,260 lunar to 2,300 solar years; and, further, that the prophetic period 400 years is 1,260 synodic periods of Mercury; that the interval from the Nabonassar era to the Crucifixion, A.D. 29, is 1,260 equinoctial

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periods of Venus; that the same interval is 69½ "weeks" of the synodic period of Venus (analogous to the 69½ "weeks" of solar years, from the Ezra *terminus a quo* to A.D. 29), that the interval from the Nabonassar era to the culmination of Papal power at the date of the coincidence of the Solar Perigee with the winter solstice, A.D. 1,267–8, is 1,260 synodic periods of Venus, and that the whole interval from the date of Isaiah's vision introductory to the "times of the Gentiles" B.C. 757, to the *end* of "seven times" measured from the 19th year of Nebuchadnezzar, A.D. 1934, is 1,260 synodic periods of Mars. We have omitted as far as possible mere details, confining our notice to leading facts; but a closer examination would considerably extend the evidence of the adjustment in question, and confirm the conclusion that the revolutions of the planets, like those of the sun and moon, are adjusted throughout to the times and seasons of Redemption chronology.

Revolutions of the Sun, Moon, and Planets, in the "Times of the Gentiles."

The eras of history form the foundation of secular chronology. This fact is universally recognised. Greek dates are reckoned from the era of the Olympiads, Roman from the era of the building of Rome, Babylonian from the era of Nabonassar, Mohammedan from the Hegira era, etc. Eras are the landmarks of chronology; and the chronology of the four empires the vertebral column of history.

Of the eras connected with the four empires the most important are the era of Olympiads, the era of the building of Rome, and the era of Nabonassar, and they are closely connected together as occurring in an interval of less than 30 years, extending from B.C. 776–747.

B.C. 758, which, according to Hales' chronology, was the year of the death of King Uzziah, when the prophet Isaiah

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was granted his vision of the glory of Jehovah, and the desolations of Israel, *marks the mean of these three great Gentile eras*, a singularly appropriate date for the sublime and solemn vision which forms the introduction in Scripture prophecy to "the Times of the Gentiles."[1]

Usher places the death of King Uzziah in B.C. 759, and Clinton in 757; Hales assigns the intermediate date, 758. The date of Isaiah's vision could not have varied much from the mean of the three Gentile eras.

Era of the Olympiads . . .	B.C. 776
Era of the foundation of Rome . .	„ 753
Era of Nabonassar	„ 747
Mean	B.C. 758

Of these three eras the third and last is the starting-point of *the Kingdom of Babylon* in the Canon of Ptolemy, which traces the course of the four empires through 55 successive reigns, over a period of 907 years, from Nabonassar of Babylon to the Roman Emperor, Antoninus Pius. The harmony of the four kingdoms of the Canon of Ptolemy with the four kingdoms of prophecy has been already pointed out.

The Canon of Ptolemy is contained in his great work the "Almagest," a treatise on astronomy, setting forth the researches of ancient astronomers and mathematicians—a work which held the position of the text-book of astronomic knowledge both in the East and in Europe for fourteen centuries, or till the time of Copernicus, the birth of modern astronomy three centuries ago.

All the astronomical observations in the "Almagest" are stated in days, months, and years, reckoned from the Era of

[1] See Calendar of "the Times of the Gentiles" in my work on "The Approaching End of the Age."

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Nabonassar—Thoth I., Nabonassar I.,—or the noon of February 26, B.C. 747. As these observations are numerous and accurate, the Era of Nabonassar is a firmly established date.

In the annexed table the astronomical observations which are gathered from various parts of the "Almagest" are arranged in chronological order, the first three columns indicating the century, year, month, and day, *as reckoned from the Era of Nabonassar.* For the sake of simplicity I have substituted the *number* of the month for the *name*, as given by Ptolemy, and the letters Ep. for the five supernumerary days, or Epagomenæ.

Months in the Equable or Egyptian year.

		Days.
I.	Thoth	30
II.	Phaophi	30
III.	Athyr	30
IV.	Chœak	30
V.	Tybi	30
VI.	Mechir	30
VII.	Phamenoth	30
VIII.	Pharmuthi	30
IX.	Pachon	30
X.	Payni	30
XI.	Epiphi	30
XII.	Mesori	30
	Epagomenæ	5
		365

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Astronomical Observations Contained in Ptolemy's "Almagest."

Cent.	Nab. y.	Month.	Astronomical Event.	B.C.	Month.	Reign.
I.	27	i. 29	Lunar Eclipse	721	Mar. 19	Mardocempadi, 1.
	28	i. 18	" "	720	Mar. 8	" 2.
		vii. 15	" "		Sept. 1	" 2.
II.	127	iii. 27	Lunar Eclipse	621	Apr. 22	Nabopolassar, 5.
III.	225	vii. 17	Lunar Eclipse	523	July 16	Cambyses, 7.
	246	xi. 28	" "	502	Nov. 19	Darii, 20.
	257	v. 3	" "	491	Apr. 25	" 31.
IV.	316	vii. 21	Summer Solstice	432	June 27	Ob. by Meton, Athens.
	366	i. 26	Lunar Eclipse	383	Dec. 23	Phanostratus.
		vii. 24	" "	382	June 18	"
	367	i. 16	" "	382	Dec. 12	Evander.
V.	454	ii. 16	Occultation of β Scorpii by the Moon	295	Dec. 21	Calippic Period, i. 36.
		v. 5	Conjunction of Moon and Spica Virginis	294	Mar. 9	" " i. 36.
	465	iii. 29	" " Pleiades	283	Jan. 29	" " i. 47.
	466	i. 7	" " Spica Virginis	283	Nov. 9	" " i. 48.
	468	viii. 29	Summer Solstice	280	June 27	Ob. by Aristarchus of Samos.
	476	iii. 20	Observation of Mars		Jan. 18	" Dionysius.
		xii. 17	" " Venus	272	Oct. 12	" Timocharis, Alexandria.
		" 21	" " "		" 16	" " "
	484	i. 18	" " Mercury	265	Nov. 15	" Dionysius.
	486	iv. 17	" " "		Feb. 12	" "
		vii. 30	" " "	262	May 25	" "
		x. 30	" " "		Aug. 23	" "
	491	viii. 5	" " "	257	May 28	" "

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Cent.	Nab. y.	Month.	Astronomical Event.	B.C.	Month.	Reign.
VI.	504	i. 27	Observation of Mercury	245	Nov. 19	Ob. by the Chaldeans.
	507	xi. 17	„ „ Jupiter	241	Sept. 4	„ Dionysius.
	512	i. 9	„ „ Mercury	237	Oct. 30	„ the Chaldeans.
	519	v. 14	„ „ Saturn	229	Mar. 1	„ „
	547	xii. 16	Lunar Eclipse	201	Sept. 22	Calippic Period, ii. 54.
	548	vi. 9	„ „	200	Mar. 20	„ „ ii. 55.
		xii. 5	„ „		Sept. 12	„ „ ii. 55.
	574	vii. 27	„ „	174	May 1	Philometor, 7.
	586	xii. 30	Autumnal Equinox	162	Sept. 27	Ob. by Hipparchus, Alexandria.
	589	Ep. 1	„ „	159	„ 27	„ „ „
	590	Ep. 1	„ „	158	„ 27	„ „ „
VII.	602	vi. 27	Vernal Equinox	146	Mar. 24	Ob. by Hipparchus, Alexandria.
		Ep. 3	Autumnal Equinox		Sept. 27	„ „ „
	603	Ep. 4	„ „	145	„ 26	„ „ „
	606	Ep. 4	„ „	142	„ „	„ „ „
	607	v. 2	Lunar Eclipse	141	Jan. 27	Calippic Period, iii. 37.
	613	vi. 29	Vernal Equinox	135	Mar. 24	„ „ iii. 43.
		x. 4	Summer Solstice		June 26	Hipparchus at Alexandria.
	620	vii. 1	Vernal Equinox	128	Mar. 23	„ „
		xi. 16	Second Dichotomy		Aug. 5	„ at Rhodes.
	621	viii. 11	1. Lunar Distance from the Sun	127	May 2	„ „
		x. 17	2. „ „ „ „		July 7	„ „
				A.D.		
IX.	840	v. 2	Occultation of Pleiades by the Moon	92	Nov. 29	Domitian, 12.
	845	vi. 15	„ „ Spica Virginis by the Moon	98	Jan. 11	Ob. by Menelaus, Rome.
		vi. 18	„ „ β Scorpii (Antares) by the Moon	„	„ 14	Trajan, 1.
	872	ix. 17	Lunar Eclipse	125	Apr. 5	Hadrian, 9.
	874	ix. 7	Observation of Saturn	127	Mar. 26	„ 11.
	875	iii. 21	„ „ Venus	„	Oct. 12	„ 12.
	876	xi. 2	„ „ „	129	May 20	„ 13.
	877	xii. 18	„ „ Mercury	130	July 4	„ 14.
	878	v. 26	„ „ Mars	„	Dec. 15	„ 15.

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Astronomical Observations Contained in Ptolemy's "Almagest."

Cent.	Nab. y.	Month.	Astronomical Event.	A.D.	Month.	Reign.
IX.	879	vii. 16	Observation of Mercury	132	Feb. 2	Hadrian, 16.
		viii. 21	" " Venus	"	Mar. 8	" "
	880	iii. 7	Autumnal Equinox	"	Sept. 25	" 17.
		x. 20	Lunar Eclipse	133	May 6	" "
		xi. 1	Observation of Jupiter	"	" 17	" "
		xi. 18	" " Saturn	"	June 3	" "
	881	viii. 2	" " Venus	134	Feb. 18	" 18.
		xi. 18	" " Mercury	"	June 4	" "
	882	iii. 14	" " "	"	Oct. 3	" 19.
		iv. 2	Lunar Eclipse	"	" 20	" "
		viii. 6	Observation of Mars	135	Feb. 21	" "
		ix. 19	" " Mercury	"	Apr. 5	" "
	883	iii. 13	Culmination of the Moon	"	Oct. 1	" 20.
		viii. 19	Lunar Eclipse	136	Mar. 6	" "
		xii. 24	Observation of Saturn	"	July 8	" "
	884	ii. 13	" " Jupiter	"	Aug. 31	" 21.
		v. 2	" " Venus	"	Nov. 18	" "
		vi. 9	" " "	"	Dec. 25	" "
	885	iii. 20	" " Jupiter	137	Oct. 8	Antoninus, 1.
		xi. 20	" " Mercury	138	June 4	" "
	886	v. 29	" " Venus	"	Dec. 16	" 2.
		vi. 6	" " Saturn	"	" 22	" "
		vii. 25	Second Dichotomy	139	Feb. 9	" "
		viii. 9	" "	"	" 23	" "
		xi. 2	Observation of Mercury	"	May 17	" "
		xi. 12	" " Mars	"	" 27	" "
		xi. 15	" " "	"	" 30	" "
		xii. 23	" " Mercury	"	July 8	" "
		xii. 26	" " Jupiter	"	" 11	" "
	887	iii. 9	Autumnal Equinox	"	Sept. 26	" 3.
		viii. 4	Observation of Venus	140	Feb. 18	" "
		ix. 7	Vernal Equinox	"	Mar. 22	" "
		xii. 11	Summer Solstice	"	June 25	" "
	888	vii. 18	Observation of Mercury	141	Feb. 2	" 4.
	898	i. 11	" " Venus	150	July 28	" "

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Volumes might be written on these deeply interesting astronomical observations, which form *the foundation of Ptolemy's tables of the movements of the sun, moon, and five principal planets.* Our object in tabulating the observations is chiefly to exhibit the fact that all their dates are reckoned by Ptolemy from the Nabonassar era, February 26th, B.C. 747, the initial Babylonian date which we are led by various considerations to regard as the *terminus a quo* of the "Times of the Gentiles."

Historical Dates in the Course of the Four Empires reckoned from the Nabonassar Era.

In my work on "The Approaching End of the Age," I have given a calendar of the "Times of the Gentiles," presenting in their chronological order the leading events in the history of the four empires, with their B.C. and A.D. dates, and showing the chronological distance of each event from the era of Nabonassar, both in solar and lunar years.

If the distance of these events from the Nabonassar starting-point be measured, not only in solar and lunar years, but also *in the periods of the planets*, it will be found that some of the most important dates possess *a hidden analogy* of a deeply interesting nature. Thus, as we have already pointed out, while 1,260 *lunar years extend from the Nabonassar era to the fall of the Western Roman empire*, 1,260 *equinoctial periods of Venus* ("*the bright and morning star*") *extend to* A.D. 29, *the year of our Lord's death and resurrection; and* 1,260 *synodic periods of Venus to* A.D. 1,268, *the year of the culmination of the power of the papal Antichrist.* Here three of the most important dates in the course of the four empires are linked together by the analogy of their times as measured by the revolutions of the Moon and the planet Venus. In the same way we indicated the analogy between the 485 solar years (69½ "weeks") from the Ezra starting-point to A.D. 29,

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and the 485 synodic periods of Venus from the Nabonassar era to the same terminus.

We further pointed out that while from the Nabonassar era 1,260 *equinoctial periods of Venus* extend to A.D. 29, 1,260 *synodic periods of Mars* fill the interval from the date of the vision of Isaiah, B.C. 757 or 758, to the end of "seven times," or 2,520 years (reckoned from the destruction of the Temple by Nebuchadnezzar), in A.D. 1934. Venus and Mars are *the two planets nearest to the earth*, and the synodic period of Mars, 779·82 days, is *the largest synodic period of any of the planets*; hence the special importance which should be attached to the periods just named.

While A.D. 1934 is the terminus of "seven times" from Nebuchadnezzar's destruction of the Temple (B.C. 587), A.D. 1923 is the close of "seven times" from the completion of Jewish captivity in the eighth year of Nebuchadnezzar, B.C. 598, the important starting-point of the series of dates in the prophecies of Ezekiel commencing with Jehoiachin's captivity. It will be observed that from the Nabonassar era to A.D. 1923–4, the interval is 1,335 *solar* years doubled; and that 1,335 *lunar* years doubled reach from the Nabonassar era to the Mohammedan edict of toleration in A.D. 1844, or 2,670 lunar years, and that these 2,670 lunar years comprise (1) 1,260 lunar years to the fall of the Western Roman Empire, (2) 150 lunar years to the Hegira era, (3) 1,260 lunar years from the Hegira era to 1844. The relation of 1,335 years in Daniel xii. to the "times of the Gentiles" will be recalled by the student of prophetic chronology. In connection with this the occurrence of 150 years at the beginning, middle, and end of the times of the four empires should be noted, and the analogy of the period to the 150 days, or five months, of the locust "woe" in the Apocalypse, and also the 150 days, or five months, of the flood. From the Nabonassar era 150 solar years measured the period of the two captivities (Israel and Judah) to the

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Ezekiel date B.C. 598; in the centre of the times of the four empires 150 lunar years extend from the fall of the Western Empire to the rise of the Mohammedan power (A.D. 476–622), and at the close of "seven times" from the Nabonassar era, 150 solar years reach from A.D. 1774–1924. The importance of the year A.D. 1774 arises from its being the initial date of the French Revolution. It was the date of the accession of Louis XVI., at which point both Alison and Carlyle commence their histories of that revolution. Historical interpreters of prophecy have strong ground for the view that the outpouring of the predicted "vials" on papal "Babylon" began at this point.

While indicating the terminal future dates just mentioned, we wish it to be observed that *we desire carefully to avoid speculating as to the exact time of the Second Advent*, believing that its date is intentionally concealed from human knowledge. We make no pretensions to know the day and hour of our Lord's return, but from multiplied evidences, believe His Second Coming to be near at hand, and desire to be prepared for it, and to be among those who shall be found "watching." We rejoice to believe that "*the times of the Gentiles*," of which we have been treating, are introductory to "*the times of restitution of all things*, which God hath spoken by the mouth of all His holy prophets since the world began" (Acts iii. 21). Till those "times of refreshing" heaven has received Jesus Christ, for whose return we wait in faith and hope, with all His pilgrim Church. His last message was, "Surely I come quickly." Let our response be, "Even so, come, Lord Jesus."

Solar and Lunar Tables based on the Prophetic Times.

The second volume of this work contains Tables of all the vernal equinoxes and new moons for 3,555 years, from B.C. 1622, the probable date of the Exodus, to A.D. 1934. It

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also contains all the full moons of lunar eclipses from B.C. 1207 to A.D. 1934. Both the *mean* and *true* new and full moons are given, and stated in days, hours, and minutes. The Tables contain more than 101,000 solar and lunar dates, and the whole of these have been *computed by means of the prophetic times contained in the Book of Daniel.* The Tables are justified by their correspondence with more than 12,000 observed, or astronomically calculated, eclipses.

These Tables afford absolute demonstration of *the correctness of the year-day theory* as applied to the prophetic times. The prophetic periods revealed in the Book of Daniel are, *taken as days*, astronomically nothing; *taken as years* they are astronomical cycles of such range and accuracy as to constitute a basis for the calculation of extensive Tables of Solar and Lunar chronology.

Similar tables might be calculated of the revolutions of the older planets (those visible without the telescope) from the prophetic times.

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Solar, Lunar, and Planetary Periods derived from the Prophetic Times.

		Days.
	Solar Years.	
1.	Tropical year	365·24224
2.	Sidereal year	365·25635
3.	Anomalistic year	365·25963
	Lunar Months.	
1.	Synodic month	29·53059
2.	Sidereal month	27·32166
3.	Anomalistic month	27·55459
4.	Tropical month	27·32158
5.	Nodical month	27·21221
	Planetary Periods.	
Mercury—1.	Synodic period	115·876
2.	Sidereal „	87·968
3.	Equinoctial „	87·968
Venus—1.	Synodic period	583·890
2.	Sidereal „	224·696
3.	Equinoctial „	224·690
Mars—1.	Synodic period	779·939
2.	Sidereal „	686·977
3.	Equinoctial „	686·926
Jupiter—1.	Synodic period	398·882
2.	Sidereal „	4,332·721
3.	Equinoctial „	4,330·729
Saturn—1.	Synodic period	378·091
2.	Sidereal „	10,759·244
3.	Equinoctial „	10,746·960

An account of the mode of the derivation of the above periods from the prophetic times will be found in the Appendix, together with tables of solar years and lunar months, based on these measures.

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IV. The Moral Adjustment.

In the course of this work we have glanced at various aspects of the adjustment of the plan of redemption to meet the moral evils existing in the world, but the supreme importance of that adjustment demands for it a separate consideration, however brief, in these concluding pages. It has been often shown, and by none more ably than by McCosh, in his "Method of the Divine Government," that to meet the clamant evils, the plan of redemption "must be of a two-fold character, corresponding to the two-fold derangement. First there must be *a provision for vindicating the Divine Government*, dishonoured by the rebellion of the creature, and this in accordance with the character of God. Then, secondly, there must be *a provision for rectifying the heart and nature of man*." [1] It is requisite, in the first place, that the plan of redemption should uphold the moral law in its requirements and judgments. Satisfaction must be rendered to the justice of God. Sin requires atonement. A righteousness is needed on the ground of which the sinful may be justified. But "God, as the author of law, the governor of the world, cannot give obedience." On the other hand, "Man has felt this want, he has tried to supply it, and he has failed." Here, then, comes in the work of the God-man Mediator, as exactly meeting the moral need. In his obedience unto death "the majesty of the law is upheld, the justice of God is satisfied, and an obedience is provided by One from whom obedience is not required as for Himself, but who has power in Himself, and puts Himself in circumstances to render it." In His holy life and death He fulfils the precepts of the law, and submits to its penalty.

[1] "The Method of the Divine Government," p. 474.

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By man has God been dishonoured; by the Son of man has God been glorified. In the second place, to meet the moral needs of the world, the plan of redemption must provide means for "rectifying the heart and nature of man." To pacify and purify the conscience, while gaining the affections, and thus to set a fallen race "on a career of active obedience," is the problem solved by the work of Christ. The character of God revealed in the Cross of Calvary is that of infinite holiness, combined with infinite compassion. Hatred to sin conjoined with love to the sinful, the burning glory shining through the tears of pity, shame, and anguish; what words can utter it? But the heart can feel it, can dwell on it, can take in its meaning, can respond to its appeal. "I, if I be lifted up from the earth, will draw all men unto Me." "Herein is love, not that we loved Him, but that He loved us," dying for the salvation of His enemies. And that love produces love. "We love Him because He first loved us." From the love thus produced flows obedience. "He that hath My commandments and keepeth them, he it is that loveth Me." "If a man love Me, he will keep My words." "If ye love Me, keep My commandments."

And the transformation in the character and life of man is wrought, not merely by the outward revelation of God in Christ, but by the inward operation of the Spirit of Christ in the soul. "We all, with open face, beholding as in a glass the glory of the Lord, are changed into the same image from glory to glory, even as by the Spirit of the Lord." Such is the method of reconciliation unveiled in "the glorious gospel of the blessed God." In its moral adjustment to human needs the gospel stands alone. "We affirm," says McCosh, "without any risk of contradiction, that no religion, rational or mythic, originating in human wisdom or human history, has met, or can so much as attempt to meet, these fundamental principles of the human mind, which are all satisfied in Christianity. It is surely strange that a system in such

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beautiful harmony with all the constituent parts of man's nature should have sprung up among the hills and plains of Judah. We could believe that the Hebrew shepherd composed the 'Principia' of Newton, or propounded the principles of the 'Novum Organum,' or the profoundest modern work on metaphysical philosophy, more readily than that he could thus have measured the heights of the Divine character, or sounded the depths of human nature. We are utterly confounded and lost in amazement, till, above the plains where ancient shepherds tended their flocks, we see a light from heaven shining around them, and hear a voice guiding them to the Saviour, which is Christ the Lord." [1]

In an earlier chapter of the present volume [2] we showed that the Bible unfolds the plan and traces the story of the restoration of the supremacy of the moral law; and that the order followed in securing this result includes—

1. The authoritative republication of the moral law.

2. The historic demonstration of its inability to produce the holiness it commands.

3. The shadowing and predicting of the mediatorial method by which God designed to accomplish the desired restoration.

4. The perfect fulfilment of the moral law and the satisfaction of its righteous claims by the Son of God in human nature.

5. The restoration of the supremacy of the moral law in the hearts and lives of His redeemed and renovated people, who "walk not after the flesh, but after the Spirit."

We further pointed out that these moral adjustments link the natural system with the Revealed. We showed that "the law of subordination" prevalent in nature "leads us up step by step to the supremacy of the moral law; that though in the world system the moral law is supreme by *right*, it is not supreme in *fact*'; and that in unfolding the restoration of

[1] "Method of the Divine Government," p. 506. [2] Page 82.

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the supremacy of the moral law, and gradually bringing about that restoration "the revealed system is in strict continuity with the natural, and rests on the immovable rock of man's moral nature and the indisputable facts of his history and condition. Conscience is indestructible. The moral law written in the human heart abides for ever. The system which restores its supremacy is self-evidenced as Divine."

The main proof of the moral adjustment connecting the natural system with the revealed lies in the transforming power of the gospel. When the Apostle Paul declared that he was "not ashamed of the gospel of Christ," he added as his reason, "for it is the power of God unto salvation to every one that believeth." The spiritual forces of the religion of Christ are analogous with the vast material forces of nature. Silent, secret, universal, persistent, resistless in their action, the forces of light, heat, gravitation, and physical life have their counterparts in the powers which control and elevate the moral world. The religion of Christ is "a living spiritual power comparable to the life of nature." Christianity is "the life of God in the soul of man." It is an "essentially historic fact, a sublime incarnated spiritual reality"; "the most real historic power which for centuries has controlled the grandest evolution upon earth—the historic development of the human race."[1] The power of the religion of Christ is seen in its transforming effects on the apostles, and especially in the character and history of the Apostle Paul; it is seen in the speedy conversion of thousands of Jews and Gentiles through the labours of the apostles, by the preaching of the gospel; it is seen in the triumph of Christianity over the Paganism of the Roman empire, a Paganism armed with imperial power, and wielding that power in centuries of persecution with a cruelty and ferocity which have never been exceeded in history; it is seen in the preservation of spiritual

[1] "Faith and Philosophy." Dr. Henry Smith, p. 466.

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life amid the corruptions of the great apostasy of mediæval times, and in the glorious Reformations and spiritual revivals of modern experience; and it is seen in the widespread movements in progress at the present day for the evangelization of the world. All the forces of sin and error have been arrayed against the religion of Christ, which was armed only with the weapons of poverty, and patience, with the word of truth, and the spirit of love; but in the age-long conflict "the weakness of God" has proved stronger than the might of man. And when we ask the Bible to explain the secret of the power of the religion of Christ, it points to *the love of God* revealed in the Cross of Calvary, to *the righteousness of God* set forth in the gospel, as freely imputed to all who believe, and to *the life of God* flowing from the person of the risen Redeemer, through the action of His spirit, in the hearts of men. The Cross of Christ is the magnet of the moral world. "The love of Christ constraineth us; because we thus judge, that one died for all, therefore all died; and He died for all, that they which live should no longer live unto themselves, but unto Him who for their sakes died and rose again."[1] "Seek among all men who make a profession of Christianity," says Vinet, "those to whom Christianity is real, vital, efficacious; those who have received the gospel in earnest, and apply it with fidelity in their life,—and ask them in view of their good works, what is the principle of these works; and there is not one of them but will answer, I obey because I love; I love because God has pardoned me."[2] Christian holiness is love born of love. It is the love of God reproducing itself in the human heart. It is the lowly flower opening its bosom to the beams of the newly risen sun of spring. It is the child looking up with a smile of trust and affection in the face of a compassionate parent. It is the heart of humanity rising to meet the heart of God, like the ocean swelling upwards be-

[1] 2 Cor. v. 14, 15, R.V.

[2] "Vital Christianity," p. 162.

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neath the mighty attractions of the solar orb. And while the revelation of God in Christ is the objective power, the secret internal action of the Spirit of Christ is the subjective influence by which the moral transformation is effected. "The law of the Spirit of Life in Christ Jesus hath made me free from the law of sin and death."[1] "The fruit of the Spirit is love, joy, peace, longsuffering, gentleness, goodness, faith, meekness, temperance."[2] "He that abideth in Me, and I in him, the same bringeth forth much fruit; for without (or apart from) Me ye can do nothing."[3] "Now being made free from sin, and become servants unto God, ye have your fruit unto holiness, and the end everlasting life."[4] The omnipotence of the gospel is the omnipotence of Grace, of Grace without, and Grace within; of the Grace of God in Jesus Christ, which brings salvation, and of the Grace of God in the Holy Spirit, which applies that salvation to the soul.

Having briefly set forth the central features of the moral adjustment in its relation to the needs of man, we now turn to consider some of its wider aspects made known in Revelation.

Wider aspects of the Moral Adjustment.—Relation to Fallen and Unfallen Angels.

The work of redemption is represented in Scripture as having a double relation to angelic beings. On the one hand, the object of the manifestation of the Son of God in human nature was related to the presence and power on earth of fallen angels; "for this purpose the Son of God was manifested that He might destroy the works of the devil";[5] He took "flesh and blood" that He might destroy him that had the power of death, that is the devil."[6] On the other hand,

[1] Rom. viii. 2.
[2] Gal. v. 22, 23.
[3] John xv. 5.
[4] Rom. vi. 22.
[5] John iii. 8.
[6] Heb. ii. 14.

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the world, as the scene of redemption, is represented as a theatre designed for the display of the wisdom of God to unfallen angels, "that now unto the principalities and powers in heavenly places might be known by the church the manifold wisdom of God, according to the eternal purpose which He purposed in Christ Jesus our Lord."[1] A brief review of the teachings of Revelation as to these wider aspects of the work of Christ will now be given, together with a glance at the teachings of astronomy as to the magnitude and unity of the stellar system connected with higher existences.

Conflict with Fallen Angels.

The volume of Revelation represents our earth as a theatre upon whose stage a great drama is being enacted in the presence, and with the co-operation of the Principalities and Powers, both good and evil, of the surrounding moral universe.

It is manifest that we use the word "Drama" only in a *figurative* sense in relation to the course of events in question, since we speak not of a mere theatrical representation of real events, but of "a real series of events invested with dramatic unity and interest."

The "Drama" of Terrestrial and Celestial history includes the fall and redemption of mankind, and extending far beyond the confines of the seen and temporal, embraces the general victory of the Divine Power, Goodness, Righteousness, and Truth over the moral and material evils which have invaded the fair realm of creation, and cast across so wide a stretch of its extent the dark shadow of sin and death.

Moral evil, according to the testimony of the Scriptures, did not originate with man, and is not confined to this our world. Its commencement took place at some unknown date, in the history of angelic beings possessed of power, knowledge and glory of the most exalted kind. A multitude of the

[1] Eph. iii. 10, 11.

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angels "kept not their first estate."[1] The height of their glory seems to have been the occasion of their fall. Pride was apparently the original sin of angels, and we find it expressly mentioned by the Apostle Paul in connection with "the condemnation of the devil."[2] The prophet Ezekiel, who must have been familiar with the teachings of the Books of Genesis and Job as to Satanic action, portrays apparently the fall of that once exalted being under the figure of that of the king of Tyre, and attributes his fall to pride. "Thou sealest up the sum, full of wisdom, and perfect in beauty. Thou hast been in Eden, the garden of God, . . . thou art the anointed cherub that covereth, and I have set thee so; thou wast upon the holy mountain of God, . . . thou wast perfect in thy ways from the day that thou wast created, till iniquity was found in thee, . . . thine heart was lifted up because of thy beauty; thou hast corrupted thy wisdom because of thy brightness, . . . thou hast sinned, therefore I will cast thee as profane out of the mountain of God."[3] Isaiah describes the sin of the king of Babylon in a similar way, "How art thou fallen from heaven, O Lucifer, son of the morning! How art thou cut down to the ground, which did weaken the nations. For thou hast said in thine heart, I will ascend into heaven, I will exalt my throne above the stars of God. I will ascend above the heights of the clouds; I will be like the Most High. Yet thou shalt be brought down to hell, to the sides of the pit."[4] The kings of Tyre and Babylon are evidently types of the Satanically inspired self-exalting antichrist, "who opposeth and exalteth himself above all that is called God, or that is worshipped, so that he, as God, sitteth in the temple of God, showing himself that he is God." The Cæsars and the Popes of Rome have alike claimed such divine honours and worship, and represent in modern history the Tyrian and Babylonian pride denounced

[1] Jude 6.
[2] 1 Tim. iii. 6.
[3] Ezek. xxviii. 12–17.
[4] Isa. xiv. 12–15.

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in holy writ. As the superhuman leader and inspirer of all those who have thus blasphemously exalted themselves to be "as God," Satan, the great Usurper of Divine power and glory, *stands in direct and striking contrast to the Son of God*, "who being in the form of God, counted it not a prize to be on an equality with God, *but emptied Himself*, taking the form of a servant, and being made in the likeness of men; and being found in fashion as a man, *He humbled Himself*, becoming obedient even unto death, yea, the death of the Cross. Wherefore also God highly exalted Him, and gave unto Him the name which is above every name; that in the name of Jesus every knee should bow, of things in heaven, and things on earth, and things under the earth, and that every tongue should confess that Jesus Christ is Lord, to the glory of God the Father."[1] Satan exalting himself and abased; the Son of God humbling Himself and exalted! the disobedience and rebellion of the one; the obedience and perfect submission of the other; the dethroning and casting down of the one; the enthroning and exalting of the other; such are the leading contrasts in the wondrous story. In its course, man, under Satanic inspiration, usurps the place of God, while God assumes the place of man. The Divine self-humiliation and self-sacrifice is set against the Satanico-human self-deification. The one act is the answer and the antidote to the other. The Seed of the woman, in His lowliness and weakness, bruises the serpent's head. By the hand of the babe and suckling God stills "the enemy and the avenger." Loosed for a season from its moorings, the moral system swings back under the influence of the infinite condescension and self-oblivious love of the Son of God, to its secure and eternal anchorage.

The mighty conflict between light and darkness, good and evil, which thus involves heaven and earth, while it extends

[1] Phil. ii. 6–11, R.V.

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over the whole of human history, and far beyond it into the realm of angelic experiences, *has its centre in the earthly life of incarnate Deity, and the sacred death upon the cross.* In the New Testament, which not only records the external facts of the life and death of Christ, but reveals their internal and unseen relations, Satan is shown warring in person against the Son of God. The conflict and its issues are symbolically sketched in the sublime apocalyptic description, "There was war in heaven: Michael and his angels fought against the dragon; and the dragon fought and his angels, and prevailed not; neither was their place any more found in heaven. And the dragon was cast out, that old serpent, called the Devil, and Satan, which deceiveth the whole world: he was cast out into the earth, and his angels were cast out with him." [1]

How stern the struggle, how measureless the issues! "The prince of the power of the air" wields every weapon at his disposition in his effort to cast down and destroy the Son of God, and overwhelm the work of redemption and the kingdom of heaven in eternal ruin! Then the sword of Satan met "the sword of the Spirit," and superhuman might strove with incarnated omnipotence. "Lucifer, son of the morning," battled with the newly risen "Light of the world"; the "accuser of the brethren" fought with their "Advocate"; the "god of this world" with "the true God," "God over all, blessed for ever," veiled in the form of David's seed; the "liar" and the "murderer" with the "Truth" and the "Life"! Watching for His Advent, Satan sought to slay Him the moment He appeared. Thus "the Dragon stood before the woman which was ready to be delivered, for to devour her child as soon as it was born." As with Israel in Egypt, and as with the Church under the persecutions of heathen Rome, so was it with Jesus Christ when Herod slew on the right and on the left in the attempt to take His life. Defeated in this murderous assault, Satan next attacked the

[1] Rev. xii. 7–9.

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Son of God with the artillery of temptation. "Led by the Spirit into the wilderness," Christ was for forty days "tempted of the devil." At the close of this period, in which He was "in all points tempted like as we are, yet without sin," He was assailed by three typical temptations, addressed to His physical, mental, and spiritual natures. The first of these appealed to His *physical* sense of hunger; the second to His *mental* nature, which embraced in its view the kingdoms of the world with all their power and glory; while the third was directed to His *spiritual* nature, which recognised in Scripture the Word of God, in angels His ministering servants, and in the promises and providence of God an unfailing refuge and support. How momentous this conflict, on whose issue hung the welfare not only of the world, but of the universe! Armed only with "the sword of the Spirit," Christ vanquished the tempter. His sole reply to each temptation was, "It it written." When Satan seeks to wrest from Him "the Sword of the Spirit" by quoting himself the Scriptures, Christ answers Scripture with Scripture, Scripture misquoted with Scripture lawfully applied. Thus did He who was "the Truth" wield successfully the weapon of truth, armed only with the panoply of light.

Leaving Him for a season, the prince of darkness departed to return again with augmented powers in order to effect His betrayal and abandonment by His disciples, and His condemnation and crucifixion by the instrumentality of Jewish and Gentile foes. The Son of God anticipated this final struggle, and prepared for it. "Now," said He, "is the judgment of this world, *now shall the prince of this world be cast out.*" "Hereafter I will not talk much with you, for *the prince of this world cometh, and hath nothing in Me.*" "Have I not chosen you twelve, and one of you is a devil? He spake of Judas Iscariot, the son of Simon; for it was he that should betray Him, being one of the twelve."[1]

[1] John vi. 70, 71.

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The anticipation of Christ was amply fulfilled. Just before the feast of the last Passover "the devil put into the heart of Judas Iscariot to betray Him,"[1] and at the supper itself, when Judas received "the sop" or morsel, "*Satan entered into him.*"[2] Then said Christ, "That thou doest, do quickly."[3] To Peter Christ said, "Simon, Simon, behold, *Satan hath desired to have you*, that he may sift you as wheat: but I have prayed for thee, that thy faith fail not."[4] Then came the long expected "hour," and "power of darkness."[5] Judas, having sold his Master for thirty pieces of silver, leads the armed band sent by the chief priests and elders to take Him, and then betrays Him into their hands with a kiss of pretended friendship. Peter first defends, and then denies the Lord, while all His disciples forsake Him. All alone Jesus Christ trod the pathway to Golgotha. No falsehood, no faithlessness, no cruelty, no scorn, no hate, no anguish availed to vanquish the might of His resolve. "*That He might destroy him that had the power of death, that is, the devil*, and deliver them who through fear of death were all their lifetime subject to bondage,"[6] He "endured the cross, despising the shame."[7] He fell, victorious! Then was the sun darkened, the rocks rent, the graves opened; for sin was cancelled, Satan dethroned, and death and hell defeated by the solitary arm of Jesus crucified.

When Christ arose, Satan fell. When Christ ascended, Satan was cast down. When Christ sat down at the right hand of God, Satan was placed beneath His feet. No more could the temper tempt or harass Him. But the Old Serpent, the implacable enemy, was still free to attack the Church, and this he did with fearful effect.

[1] John xiii. 2. [2] *v.* 27. [3] *v.* 27. [4] Luke xxii. 31, 32.
[5] Luke xxii. 53. [6] Heb. ii. 14, 15. [7] Heb. xii. 2.

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"*Satan hindered us.*"[1]

What a commentary on these words of Paul is the history of the Church! "The kingdom of heaven," said our Lord, "is likened unto a man which sowed good seed in his field: but while men slept, *his enemy came and sowed tares among the wheat*, and went his way. But when the blade was sprung up, and brought forth fruit, then appeared the tares also. So the servants of the householder came and said unto him, Sir, didst not thou sow good seed in thy field? from whence then hath it tares? And he said unto them, *An enemy hath done this.*" Explaining the parable, He added, "He that soweth the good seed is the Son of man; the field is the world; the good seed are the children of the kingdom; but the tares are the children of the wicked one; *the enemy that sowed them is the devil.*"[2] When Christ took the Church out of the world, Satan brought the world into the Church. Christ purged out the leaven of evil, Satan reintroduced it. By little and little advances he prevails, for "a little leaven leaveneth the whole lump."[3] First Satan antagonizes the preaching of the gospel, then he corrupts the gospel. "Satan cometh immediately, and taketh away the word that was sown in their hearts."[4] "The god of this world hath blinded the minds of them that believe not, lest the light of the glorious gospel of Christ, who is the image of God, should shine unto them."[5] Entering the Church, "*Satan himself is transformed as an angel of light*," *and* "*his ministers*" "*as the ministers of righteousness.*"[6] "The mystery of iniquity doth already work,"[7] says Paul. "I marvel," he writes to the Galatians, "that ye are so soon removed from Him that called you into the grace of Christ *unto another gospel*, which is not another; but there be some that trouble you, and would pervert the gospel of Christ. But though we, or an

[1] 1 Thess. ii. 18. [2] Matt. xiii. 24–28, and 37–39. [3] 1 Cor. v. 6.
[4] Mark iv. 15. [5] 2 Cor. iv. 4. [6] 2 Cor. xi. 14, 15. [7] 2 Thess. ii. 7.

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angel from heaven, preach any other gospel unto you than that which we have preached unto you, let him be accursed."[1] "Put on the whole armour of God, *that ye may be able to stand against the wiles of the devil.* For we wrestle not against flesh and blood, but *against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places,*" or "wicked spirits in heavenly places."[2] "Your adversary the devil," says Peter, "as a roaring lion, walketh about, seeking whom he may devour: whom resist stedfast in the faith."[3] "Resist the devil," says James, "and he will flee from you."[4] These exhortations and warnings have been to a great extent neglected. The professing Church has apostatized. That it would do so was foretold. "The Spirit speaketh expressly, that in the latter times some shall depart from the faith (or apostatize), *giving heed to seducing spirits,* and doctrines of devils (demons); speaking lies in hypocrisy; having their conscience seared with a hot iron; forbidding to marry, and commanding to abstain from meats, which God hath created to be received with thanksgiving of them which believe and know the truth."[5] "Then shall that Wicked be revealed, whom the Lord shall consume with the spirit of His mouth and shall destroy with the brightness of His coming; even him, whose coming is *after the working of Satan* with all power and signs and lying wonders, and with all deceivableness of unrighteousness in them that perish; because they received not the love of the truth, that they might be saved."[6] On this falling away from the faith, and manifestation in the Church or "Temple of God" of the "man of sin," the Judas-like "son of perdition," the prophecies of the Old and New Testament largely expatiate. Next to the advent of Christ Himself, it is the most prominent theme both in the prophecies of Daniel and the Apocalypse of John. The apostasy

[1] Gal. i. 6–8. [2] Eph. vi. 11, 12. [3] 1 Pet. v. 8, 9. [4] Jas. iv. 7.
[5] 1 Tim. iv. 1–3. [6] 2 Thess. ii. 8–10.

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itself occupies in Christian history the same extensive and central position which it occupies in prophecy. Satan, who invaded the world, has invaded the Church. He who usurped the civil Throne has seated himself in the spiritual Temple. Worshipped of old in the Roman Cæsars, he is still worshipped in the Roman popes. The rule of Rome has ever been the rule of Satan. Like Satan himself, Rome has been "a murderer from the beginning."[1] Hence "in her," the modern and greater Babylon, is "found the blood of prophets, and of saints, and of all that were slain upon the earth."[2]

The Expulsion of Satan.

"I beheld Satan as lightning fall from heaven!"[3] Such was the utterance of Christ when the seventy disciples He had sent forth "returned again with joy, saying, Lord, even the devils are subject unto us through Thy name."[4] "*For this purpose the Son of God was manifested, that He might destroy the works of the devil.*"[5] Christ loosed those whom Satan had bound.[6] "With the finger of God" He "cast out devils."[7] "Stronger" than Satan, He came upon him, and overcame him, and took from him "all his armour wherein he trusted," and "divided his spoils."[8]

I. The expulsion of Satan from individuals.

From the fierce Gadarene "dwelling among the tombs," whom none could "tame" or "bind," whose name was "Legion," Christ expelled a host of devils with a word. From Mary of Magdala He cast out "seven devils." Wherever He went He drove out from the possessed "the devil and his angels." Risen from the dead, and wielding "all power in heaven and in earth," Jesus Christ renewed the

[1] John viii. 44; Rev. xvii. 6. [2] Rev. xviii. 24.
[3] Luke x. 18. [4] *v.* 17. [5] 1 John iii. 8. [6] Luke xiii. 16.
[7] Luke xi. 20. [8] *v.* 22.

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commission He had given His disciples to "cast out devils."[1] And "in His name" they did cast out devils. Thus Paul turned to the Pythoness at Philippi, and "said to the spirit" by which she was possessed, "I command thee in the name of Jesus Christ to come out of her. And he came out the same hour."[2] And at Samaria, when Philip preached, "unclean spirits, crying with loud voice, came out of many that were possessed with them."[3]

II. The expulsion of Satan from his ruling position in the Roman Empire.

The Apocalypse has long been recognised by students of prophecy as "the story of Christ's kingdom." In the course of that story we behold all things gradually brought into subjection to Christ's rule and authority. Stage by stage the kingdom of Satan falls, and the kingdom of God is established in its place. First, the heathen religion of the god of this world is "cast down" from the high places of governmental authority. The old heathenism is overthrown in the Roman empire. Men cease to worship Cæsar as a god, and to offer sacrifices to devils. The martyrs triumph, and Christianity becomes the religion of the nations composing the Roman world.

Secondly, the old Roman Empire, the mightiest the world has ever seen, is invaded and overthrown, to make way for the universal kingdom of God. The Cæsars cease to rule. In their place, for the time, rise those Christian Gothic kingdoms which have wielded supremacy for the last fourteen centuries. During the period of these Gothic kingdoms takes place a great apostasy in the professing Church. The followers of the Lamb are reduced in number, but form a faithful army. They stand with Christ on the symbolic Zion. In this second conflict between the true elect Church and Satan, the powers of evil obtain a temporary triumph. The

[1] Mark xvi. 17. [2] Acts xvi. 18. [3] Acts viii. 7.

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Christian witnesses are slain. In the hour of the deepest depression of the Church the Son of God arises in His might. The voice of His testimony sounds forth as the roar of a lion.[1] The word of God is rescued from its concealment, translated into the languages of Europe, and circulated among the nations. Religious and civil freedom are secured, but not without a terrible struggle. The Reformation is almost overwhelmed by a reactionary movement. The blood of martyrs flows. Europe is covered with contending armies. Crushed in some countries, corrupted in others, the Reformation triumphs on the whole. Then, on apostate Christendom God pours out the vials of His wrath. Tyrannical monarchies and apostate Churches are overthrown by democratic revolutions. The reign of Terror has its turn. The martyrs are revenged. "Babylon the Great"[2] is dethroned, stripped of its possessions, and burned. The supremacy and glory of the apostate Church are destroyed for ever; but the presence of Satan remains, and under his influence the hosts of "Armageddon"[3] gather for the final conflict with the Lamb.

III. The expulsion of Satan from the world.

Heaven is opened, and the Son of God appears in His glory, followed by "the armies of heaven." Now, indeed, is "the judgment of this world, now shall the prince of this world be cast out."[4] Satan is bound for a thousand years, and "cast into the bottomless pit, and shut up, that he should deceive the nations no more till the thousand years should be fulfilled, and after that he must be loosed a little season."[5] At the close of the millennial reign of Christ and His saints Satan shall be "loosed out of his prison, and shall go out to deceive the nations that are in the four quarters of the earth" to gather them together in battle against the "camp of the

[1] Rev. x. 3. [2] Rev. xvii.–xix. [3] Rev. xvi. 16.
[4] John xii. 31. [5] Rev. xx. 2, 3.

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saints," and the "beloved city."[1] The final judgment follows. "Fire came down from God out of heaven, and devoured them. And the devil that deceived them was cast into the lake of fire and brimstone, where the beast and the false prophet are, and shall be tormented day and night for ever and ever."[2] The sin-polluted earth is burned. "Death and Hades" are cast into the "lake of fire,"[3] and God creates "a new heaven, and a new earth," wherein shall dwell righteousness.[4] Then shall "the tabernacle of God" be with men, and "He will dwell with them, and they shall be His people, and God Himself shall be with them and be their God; and God shall wipe away all tears from their eyes; and there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain; for the former things are passed away."[5]

The foregoing is the merest outline of the Divine Drama unfolded in the pages of Revelation. The subordinate place occupied by man in the entire movement is one of its most prominent features. He is not the author either of the world's ruin or of its redemption. He is the subject of Satanic temptations, and Divine deliverances. He falls by the action of one supernatural power, and rises by the action of another. He is the object of the conflict engaging the watchful interest of the moral universe. Myriads of supernatural beings are the witnesses. Angels, principalities, and powers crowd the seats and ramparts around the dread arena. They follow with eager glances every turn of the warfare. They oppose or aid the combatants. They share and celebrate the triumphs. In their presence, man, vanquished by Satanic wiles, rising through the redeeming grace of God, becomes the victor over all the might of the enemy. Out of weakness he is made strong, waxes valiant in the fight, and turns to flight the armies of the aliens. Jesus Christ, the Son

[1] Rev. xx. 7–9. [2] Rev. xx. 9, 10. [3] Rev. xx. 14.
[4] Rev. xxi. 1 and 2 Pet. iii. 13. [5] Rev. xxi. 3, 4.

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of Man, leads the warfare, and bruises the head of the serpent. The Cross conquers. Sin, Satan, death are overcome, and all things are made new.

The Ministry of Holy Angels.

It is a remarkable fact that while in the pages of Revelation EVIL ANGELS are seen acting in connection with the *fall* and ruin of man, HOLY ANGELS are similarly seen acting in connection with his *redemption.* The first appearance of Satan is in Paradise, on the occasion of the sin and expulsion of man, while the first appearance of holy angels, as the ministering servants and sympathizing friends of men, is in connection with the call of Abraham, the father of the faithful, with whom the history of redemption, in its Judeo-Christian phase, begins. From this point the ministry of angels continues to be variously revealed up to the advent of the Redeemer, whose person and work form the centre of their interest. For His coming they had waited in glad expectation. Five hundred years before He came, Gabriel had carried on swift wing to the prophet Daniel in Babylon the marvellous message *which first unfolded the time of His advent*, and plainly predicted His sufferings, and the atoning object of His death, together with the destruction of Jerusalem and its temple, and the desolations of the Jewish people which followed.

The New Testament opens with the vision of the same angel by Zacharias, the father of John the Baptist. The angel appears in the temple to the solitary priest whose lot was to minister and burn incense, "in the order of his course," the whole multitude of the people praying without. The angel announces to Zacharias the approaching birth of John, the forerunner of Messiah, adding, "*I am Gabriel, that stand in the presence of God*, and am sent to speak unto thee, and to show thee these glad tidings." Six months later Gabriel

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is "sent from God unto a city of Galilee named Nazareth," to announce to Mary the still more glorious tidings of the supernatural conception and birth of "Jesus," the "Son of God," then about to be accomplished. At Bethlehem the child is born, and laid in a manger. Shepherds, near by, keep their flocks by night. "And, lo, the angel of the Lord came upon them, and the glory of the Lord shone round about them: and they were sore afraid. And the angel said unto them, Fear not: for, behold, I bring you good tidings of great joy, which shall be to all people: for unto you is born this day in the city of David a Saviour, which is Christ the Lord. And this shall be a sign unto you; Ye shall find the babe wrapped in swaddling clothes, lying in a manger. And suddenly there was with the angel *a multitude of the heavenly host* praising God, and saying, Glory to God in the highest, and on earth peace, goodwill toward men." Such a vision of angels had never been seen on earth before. Never before had such an anthem been sung in the hearing of men. It was a new thing for the earth to become a temple court for the worship of Jehovah by the hosts of heaven. Isaiah had seen in vision the adoration of the thrice holy Lord of hosts, by the winged seraphim, on the occasion of the prediction of the times of Jewish blindness and desolation; but the worship on that occasion was in the Temple in heaven, in which John the apostle, centuries after, witnessed similar angelic adoration. But at the birth of Christ earth, not heaven, is the place in which the glorious innumerable angels assemble and appear. They crowd around the lowly manger. They light up with their presence the little hills of Bethlehem. They fill the midnight air with music. They begin a psalm of praise, whose echoes are unfinished yet. And though they return to heaven to bear far and wide throughout the universe to the most distant worlds the tidings of what they have seen at Bethlehem, they come back to earth again and again, lingering with watchful eyes around their Lord, ready to

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render any needed or permitted service. In the desert, when the tempter leaves Him, the angels minister to Him; in the garden of His agony an angel strengthens Him. The angels who rejoice over the repenting sinner sympathize with the suffering, sinless Saviour of sinners. No angel could redeem a ruined world, but one blessed angel was permitted to raise the form of the Redeemer from the ground, where He had fallen in His anguish, to wipe the blood-sweat from His brow, and to speak unrecorded words in the ear of the Son of Man "strengthening Him" for the awful conflict of Calvary, on whose issues hung not only the redemption of the world, but the confirmation of the pillars of heaven, the fulfilment of angelic prophecies and hopes, and the establishment of the moral order of the universe. And when the hour had come to loose the bonds of death and the grave, an angel, whose "countenance was like lightning, and his raiment white as snow," rolled back the stone from the door of the sepulchre, and sat upon it. And two angels enter the empty grave, and sit there in silent joy, "one at the head, and the other at the feet, where the body of Jesus had lain." To those who sought Him in the grave they say, "Why seek ye the living among the dead?" "Come, see the place where the Lord lay. And go quickly, and tell His disciples that He is risen from the dead." And when, later on, from the midst of His disciples on Olivet, Jesus Christ ascends, and a cloud receives Him out of their sight, two angels, "in white apparel," appear standing with the disciples on the spot from which He had just departed, and say, "Ye men of Galilee, why stand ye gazing up into heaven? This same Jesus, which is taken up from you into heaven, shall so come in like manner as ye have seen Him go into heaven." One of these disciples, following with the opened eyes of his Spirit-illumined mind the ascending Redeemer, sees Him seated among the angels as their Lord. His reference to the fact recalls the ascension which he had witnessed from Olivet, and seems to supplement the

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account of it. With simple naturalness of true and deep conviction, he speaks of "Jesus Christ, *who is gone into heaven*, and is on the right hand of God; angels and authorities, and powers being made subject unto Him." Nor is it difficult to trace here some references to those angelic deliverances which this very disciple had experienced more than once in the hour of distress and danger. He could not forget the fact, that when put with another disciple in the common prison, for testimony to Christ, "the angel of the Lord by night opened the prison doors, and brought them forth, and said, Go, stand and speak in the temple to the people all the words of this life"; or the fact that when sleeping, on another occasion, "between two soldiers, bound with two chains," with martyrdom impending, in the words of Scripture, "the angel of the Lord came upon him, and a light shined in the prison: and he smote Peter on the side, and raised him up, saying, Arise up quickly. And his chains fell off from his hands. And the angel said unto him, Gird thyself, and bind on thy sandals. And he did so. And he saith unto him, Cast thy garment about thee, and follow me. And he went out, and followed him; and wist not that it was true which was done by the angel; but thought he saw a vision. When they were past the first and the second ward, they came unto the iron gate that leadeth unto the city, which opened to them of its own accord: and they went out, and passed on through one street; and forthwith the angel departed from him. And when Peter was come to himself, he said, Now know I of a surety, that *the Lord hath sent His angel*, and hath delivered me out of the hand of Herod, and from all the expectation of the people of the Jews." Nor could Peter forget that the Herod who sought on this occasion to compass his death was smitten shortly after by "*the angel of the Lord*" with sudden and terrible destruction. The vision of the angel seen by Cornelius, too, would naturally occur to Peter's thoughts, connected, as it was, with the call of the Gentiles

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into the kingdom of God—the scene described by Cornelius to Peter himself, in which a man stood before him "in bright clothing," and bade him "send to Joppa and call hither Simon whose surname is Peter." All these experiences were fresh in Peter's memory when he wrote of Christ as the Lord of angels, and spoke of "angels, authorities, and powers being made subject unto Him."

Paul, also, the great apostle of the Gentiles, was ministered to by angels. When tossed by tempests on the Sea of Adria, and all hope of deliverance had been abandoned, "there stood by me," says Paul, "this night, the angel of the Lord, whose I am and whom I serve, saying, Fear not, Paul; thou must be brought before Cæsar; and lo, God hath given thee all them that sail with thee." It was Paul's deep conviction that the apostles of Christ, in their privations and poverty, their sufferings and exposure to death, were set forth by the hand of God as "*a spectacle to angels*" (1 Cor. iv. 9), and that the "principalities and powers in heavenly places" were advanced, through the revelation of the Divine purposes concerning the Church, in their knowledge of "the manifold wisdom of God" (Eph. iii. 9–11). Paul considered that the angels were present in the assemblies of the Church on earth (1 Cor. xi. 10), and "the spirits of just men made perfect" associated with "an innumerable company of angels" in heaven (Heb. xii. 22, 23); and while he forbids the "worshipping of angels" (Col. i. 18), he charges Timothy, in the presence of "the elect angels," to act with perfect impartiality in his work of oversight (1 Tim. v. 21). In the Epistle to the Hebrews he places in the forefront Christ's exaltation above the angels, saying, that as the Son of God He has, "by inheritance, obtained a more excellent name than they," and that whereas God makes His angels "ministering spirits *sent forth to minister for them who shall be heirs of salvation*," He bids the Son sit at His right hand until He makes His enemies to be His footstool; says to Him, "Thy throne, O God, is for ever

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and ever"; calls Him the Creator and Judge, at whose word the heavens and earth were founded, and at whose word they shall pass away; proclaims Him unchanged and unfailing, amid all the vicissitudes of rolling years, and commands "all the angels of God," the entire hierarchy of heaven, to worship Him. Not to angels, says Paul, has God "put in subjection the economy to come" (οἰκουμένη), but to Him "*who was made a little lower than the angels for the suffering of death*"; but is now "crowned with glory and honour," set over the works of God's hands, and called to a dominion so universal, that "all things," including death itself, "are put in subjection under His feet." (Comp. 1 Cor. xv. 24–28 with Heb. ii. 5–9.)

The four references in Daniel, Jude and Revelation to "Michael the archangel" represent him as contending with Satanic hosts on behalf of the interests of God's people in the world. In one scene he contends with the devil about the body of Moses; in another, he resists the kings of Persia in their opposition to Israel; in another, Michael and his angels fight against the dragon and his angels, with the issue that "the devil is cast out into the earth," and his angels with him, expelled from the high places which he had previously occupied as the accuser and enemy of the suffering Church; while in another he arises in the final crisis of their need for the help of Israel, as "the Great Prince that standeth up" for that persecuted but divinely favoured people.

But it is above all in the writings of the apostle John in the New Testament that we see the forms and hear the voices of the "ten thousand times ten thousand, and thousands of angels," in their ceaseless ministrations both on earth and in heaven! As to Daniel in Babylon, so to John in Patmos, angels were sent as messengers of Divine revelations. An angel bears to Daniel the prophecy of the "seventy weeks," an angel interprets to Daniel his vision of the Ram and the Goat, representing Persian and

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Grecian history, and the events of "the last end of the indignation." An angel shows him the things that are "noted in the Scripture of truth" concerning the conflicts, alliances, and persecuting action of the Ptolemies and Seleucidæ, Antiochus and the Romans. An angel reveals to him the mysterious prophetic times measuring the duration of the periods of Gentile triumph and Jewish desolation, the two thousand three hundred years, three and a half "times," the 1260, 1290 and 1335 prophetic "days," or years, whose meaning, while hidden from the wicked, should be understood by the wise. Similarly an angel is the bearer of apocalyptic revelations to John; an angel talks with him, and instructs him in the mysteries of the great book of Providence; the angels in the vision which he beholds blow the seven successive trumpets of Divine judgment, and pour out the seven vials containing the "seven last plagues." An angel shows him "the judgment of the great whore that sitteth upon many waters." An angel interprets to him "the mystery of the woman, and of the beast that carrieth her," expounding the meaning of the seven heads, the ten horns, the waters and the great city "which reigneth over the kings of the earth." An angel exhibits to him the fall of Babylon under the figure of a millstone cast into the sea, and cries, "Babylon the great is fallen, is fallen!" and an angel shows him "that great city, the holy Jerusalem, descending out of heaven from God." Twice does John fall down at the feet of the revealing angel to worship him (Rev. xix. 10, and xxii. 8). How striking and instructive the contrast between the action of Christ and that of angels when the prophet thus falls prostrate! Jesus, when John "fell at His feet as dead," laid His right hand upon him, saying, "Fear not, *I am the first and the last*; I am He that liveth and was dead, and behold, I am alive for evermore, Amen; and have the keys of Hades and of death." The angel twice over forbids the homage, and says, "*I am a fellow servant with thee* and with thy brethren

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that hold the testimony of Jesus: worship God."[1] John hears from the angels a sevenfold ascription of praise to God (Rev. vii. 12), and he hears from the same angels a sevenfold ascription of praise to "the Lamb that was slain" (Rev. v. 11, 12). And every creature in heaven and earth, and under the earth, hears the saying, "Blessing, and honour, and glory, and power, be unto Him that sitteth upon the throne, and unto the Lamb for ever and ever."

The whole Apocalypse is an instance of ANGELIC PROPHECY. It is expressly stated in the opening verse that Christ "*sent and signified by His angel*" this prophecy unto His servant John; and in the last chapter, twice over, the same fact is declared: "These sayings are faithful and true; and the Lord God of the holy prophets *sent His angel* to show unto His servants the things which must shortly be done"; "*I Jesus have sent Mine angel to testify unto you these things in the Churches.*" The stamp of angelic knowledge is upon the revelation itself; a revelation high as heaven, deep as hell, longer than earth, broader than sea; a revelation which embraces the course of time, and extends into the ages of eternity.

Grouping together these and other revealed facts as to the nature, character, position, office and work of angels, and their relation to the history of the world, the scheme of redemption, and the surrounding universe, we observe that they are beings of an older and higher order than man, spiritual in nature, holy in character, exalted in office, possessed of extraordinary powers, *acting as agents of God's providence on the widest scale* in both the visible and invisible world. We observe that they are messengers of the Divine will, and ministers of mercy and of judgment, and that as such they take a ceaseless practical interest in terrestrial events, and especially in the progress of the work of Redemption,

[1] Rev. xix. 10, R.V.

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beholding in it the development of the hidden treasures of the infinite wisdom, power, and love of God, and being filled with the deepest sympathy for its objects, and with joy in their accomplishment. We observe that they are associated with Christ as "ministering spirits" in all the stages of His redeeming work; that they are subject to His dominion, and devoted to His service, and to the service of "the heirs of salvation." We observe, above all, that they are worshippers of His Person; that while refusing themselves to receive worship from men, they render worship to Christ as the Son of God, and the Incarnation of Deity; concerning whom it is written: "Let all the angels of God worship Him"; and that they render equal homage to "God," and "to the Lamb." We note that they deeply desire to look into the mysteries of Providence, and that, like the prophets of old, they were acquainted with and announced beforehand "the sufferings of Christ and the glories that should follow," and that the chronology of these events is a subject on which they display the profoundest and most comprehensive knowledge. We mark their lively sympathy with holy prophets and humble saints to whom they were sent in fulfilment of their ministry, and that they exhibit in this a spirit like that of their exalted Lord. We further note that they come from and return to other and loftier spheres where the manifestation of God's presence and glory is immediately enjoyed, and that as such glorious immortal beings need no rest or cessation of activity we conclude that it is utterly impossible that the spheres they inhabit are worlds in which light and darkness reign alternately, or planetary worlds; but rather spheres possessed of uninterrupted illumination, and surpassing splendour, such as the solar and stellar worlds which form the centres of planetary motion. Our attention is thus directed to the "many mansions" of the surrounding sidereal system.

Let us hear the testimony of astronomy as to these.

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A Night Visit to the Observatory.

We enter the building, lantern in hand, and rolling open a wide segment of the dome, stand beside the telescope under the starry sky. Looking up at the glorious spectacle of the midnight heavens, we recall the fact that from two thousand to two thousand five hundred stars are visible in the northern hemisphere to the naked eye. There is not one of these worlds but is greater than our own. How utterly impossible do we find it to believe that all these mighty worlds are destitute of life and intelligence, and that our own little planet is the only spot in the universe where these are to be found! On the earth every continent, every island, is crowded with life; the air, the solid land, the lakes, the rivers, the seas, are filled with an almost infinite variety of living creatures; the very rocks are built up of the fossil remains of creatures still more countless which have lived on our planet in the past; and is it credible that in all the worlds which surround our own no life is to be found; that this glorious universe is a silent desert, a domain of emptiness, a vast congeries of celestial cities with none to dwell in them, an endless display of mansions and palaces unseen save by the feeble eye of man, uplifted from his lonely habitation to scan their useless splendour from afar?

But the stars which are thus visible only form a small part of those whose existence is known to us. On that table there lies a binocular glass. Take it up and look at any part of the heavens through it, and see what a multitude of stars it brings into view utterly invisible to the naked eye! The binocular forms an admirable and inexpensive instrument for elementary astronomical research, especially when used with maps of the starry heavens. Proctor's star atlas is one of the simplest and best for this purpose, showing without crowding all the stars in the British Association Catalogue down to the sixth magnitude. As we turn over the twelve maps of this

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atlas we note the fact that they exhibit 2,487 and 3,466 stars in the northern and southern hemispheres, 5,953 in all, and that the British Association Catalogue from which they are taken professes to include all the stars visible to the naked eye. But now turning to a more extensive catalogue, we take down from the shelves a volume of 1,200 pages—Lalande's Catalogue of Stars—which gives the Right Ascension and North Polar distances of 47,390 stars, or nearly 48,000 stars, and as the heavens are divided by astronomers into 24 parts, corresponding with the 24 hours of the day and night, each of the hour sections would contain on an average 2,000 of these stars, or about as many as are ordinarily seen in the entire hemisphere by the naked eye. But what are even 48,000 stars compared with the number which can be seen with a small telescope of three inches aperture? Look at the stars on this chart of the northern hemisphere representing those seen by Argelander and his assistants during their persevering survey of the northern heavens with a 2¾-inch telescope. There are no less than 324,198 stars marked on that chart! They lie almost as crowded together as the sands upon the sea-shore, and in parts, especially along the Milky Way, the crowding is frequently so great as to make it impossible to distinguish star from star! That chart is a photograph made by Proctor from Argelander's maps. Turning the light of the lantern full upon it, you may observe that some hand has written with pen and ink below its marvellous picture of the star-filled hemisphere the sublime yet simple and touching words of Jesus Christ, "In My Father's house are many mansions"!

But now let us use the larger instrument to scan some of the wonders of the heavens. Let us direct it first to the constellation Perseus, and as we have to find a particular spot in the constellation we set the equatorial telescope by means of its hour circle to 2h. 11m. Right Ascension, and elevate it to 56° 38′ North Declination, and having rotated it so that the

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hour on the meridian corresponds with that shown at the moment by the sidereal clock, we mount the steps of the ladder and look through the instrument. A brilliant mass of stars, apparently countless in number, now fills the field of view! That is the magnificent cluster of stars in the sword-handle of Perseus. After gazing for a time at this sublime celestial spectacle, on slightly moving the direction of the instrument a second glorious cluster comes in view, also of stars from the 7th to the 15th magnitudes, and all these stars are, as separate objects, invisible to the naked eye. We might spend the whole night in thus examining star clusters, and would only then have begun their survey. But let us glance for a moment at one of the many clusters remarkable for spherical form and compactness. Directing the telescope to 16h. 37m. Right Ascension and 36° 39′ North Declination, a wondrous ball of stars blazes up in the centre of the field of view. That mighty system is known to astronomers by the modest name of 13 M. Herculis, indicating that it is the 13th in Messier's catalogue of nebulæ, and is situated in the constellation Hercules. It was discovered by Halley in 1714, and examined by Messier with a 4-ft. Newtonian instrument 50 years later, who was unable to resolve it into separate stars. With this large equatorial it is perfectly resolved even with low-power eyepiece, while with eyepieces of higher power it seems to blaze and break into separate stars and star branches streaming out from a dense core of glittering light points. Language utterly fails adequately to describe such an object. It has been truly said that none could behold it for the first time without uttering "a shout of wonder." And yet that system of worlds is only one among thousands, and has not even a name assigned to it, being only known among astronomers by its number, 13 M. Herculis!

And now changing again the direction of the telescope, we bring it to bear on the Milky Way, that faint mysterious river of light, which streams all across the midnight sky.

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Pointing the telescope to the edge of the Milky Way and moving it slowly across its breadth, and then in the direction of its length, we see that it really consists of millions of minute stars closely crowded together, along with larger stars and star clusters. And the Milky Way thus traversing the sky goes completely round the world, crossing the southern hemisphere, and returning again to the northern in a vast ring-like form, made up of closely compacted stars and star clusters all the way. We have spoken of star catalogues and star maps representing thousands of stars, but here are millions! It has been reckoned that the highest telescopic power brings into view no less than fifty or sixty millions of stars, and photography has of late enormously increased the number known to exist by revealing multitudes of stars too faint to be detected even by the most powerful telescopes.

If we are overwhelmed with the thought of the mere number of the stars, what shall we say to their magnitudes and distances, and the variety of their colours, constitutions, and mutual associations? What of the thousands of double stars, and of nebulæ, and of the planets, satellites, comets, and meteorites?

To illustrate the variety found among sidereal objects, we direct the telescope to some of the double stars remarkable for the beauty of their component colours, yellow and purple, pale green and blue, yellow and sapphire, etc., and among the rest to γ Andromedæ, a pair of stars whose colours are orange and sea-green, and then, as we are near it, we bring the instrument to bear upon the great nebula in Andromeda, and contemplate its cloud-like appearance and lenticular form, stretching across the entire field of view, an overpowering spectacle! We might spend the rest of the night and hundreds of nights in examining the other nebulæ scattered here and there among the stars, or in studying the special features of the thousands of double stars now known and catalogued,

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or in tracing out the wonders of the Milky Way; but the object we had in view of presenting an impressive ocular demonstration of the almost infinite magnitude of the sidereal system is already accomplished. And now another question claims our attention. Do these stars and nebulæ constitute many systems or only one? What is the status of the nebulæ? Are they external galaxies, or intra-galactic? Astronomy teaches us that they are the latter, and this is one of its most important discoveries. All the contents of the heavens—stars, nebulæ, and Milky Way—belong to one great system. To illustrate this, we take down from the bookshelves the Monthly Notices of the Royal Astronomical Society for June, 1894. We open the two beautiful maps prepared by Sidney Waters exhibiting the nebulæ and clusters of the northern and southern heavens, "drawn upon an equal surface projection from Dr. Dreyer's Catalogue of 1888." There are no separate stars marked on those two maps, nothing but clusters and nebulæ and the Milky Way. Seen in these maps, the Milky Way is evidently the vast equatorial ring, while the nebulæ are grouped at the poles of the system.

The present view of astronomers on "the Status of the Nebulæ" is well expressed in the following sentence in Clerke's work on "The System of the Stars":—

"The question whether nebulæ are external galaxies hardly any longer needs discussion. It has been answered by the progress of discovery. No competent thinker, with the whole of the available evidence before him, can now, it is safe to say, maintain any single nebula to be a star system of co-ordinate rank with the Milky Way. A practical certainty has been attained that *the entire contents, stellar and nebular, of the sphere belong to one mighty aggregation, and stand in ordered mutual relations within the limits of one all-embracing scheme*—all-embracing, that is to say, so far as our capacities of knowledge extend. With the infinite possibilities beyond, science has no concern. The chief reasons justifying the assertion that the status of the nebulæ is *intra-galactic* are of three kinds. They depend, first, upon the nature of the bodies themselves; secondly, upon the stellar association of many

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of them; thirdly, upon their systematic arrangement as compared with the systematic arrangement of the stars." [1]

The following sentence quoted by Clerke clearly describes the nebular distribution :—

"In that zone of celestial space where stars are excessively abundant nebulæ are rare; while in the two opposite celestial spaces that are farthest removed from this zone nebulæ are abundant. Scarcely any nebulæ lie near the galactic circle; and the great mass of them lie around the galactic poles. Can this be mere coincidence? When to the fact that the general mass of nebulæ are antithetical in position to the general mass of the stars we add the fact that local regions of nebulæ are regions where stars are scarce, and the further fact that single nebulæ are habitually found in comparatively starless spots, does not the proof of a physical connection become overwhelming?"

"Summarising our conclusions," says Clerke, "we find the unity of the stellar and nebular systems to be fully ascertained. They are bound together by relations of agreement and contrast scarcely less visibly intimate than those severally connecting individual members of each order. The general plan of nebular distribution is into two vast assemblages, one on either side of the galactic zone; but while this is, comparatively speaking, avoided by the unresolved crowd, it is densely thronged with clusters and gaseous nebulæ. The conditions of aggregation within the zone are hence inferred to differ from those prevailing outside it; but in what respect they are different cannot be readily surmised, far less determined. As to the distance of the nebulæ, we know nothing positive; they no doubt vary extensively. Nor can either fineness of grain or faintness of light (both of which may be inherent qualities) serve to distinguish between those nearest to and those farthest away from us. We may, however, plausibly conjecture that the hood-like accumulations of the nebulæ are of about the same order of remoteness with eleventh or twelfth magnitude stars, thus constituting, as it were, polar caps, on a sphere of which the annular formation of the Milky Way marks the equator." [2]

It is deeply interesting to observe the evidence afforded by the form of the galactic zone of *the general motion of the entire system of stars and nebulæ around a physical centre.* As the form and direction of the rings of Saturn arise from the revolution of that planet, so apparently do the form and direction of the galactic zone from the revolution of the Universe around its physical centre. What if that centre

[1] "The System of the Stars," A. M. Clerke, p. 368. [2] *Ibid.*, p. 377.

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be the throne of God? If so, we gain an exalted conception of the throne on which our Lord Jesus Christ is seated, "far above all principality, and power, and might, and dominion, and every name that is named not only in this world, but also in that which is to come";[1] the "throne of the Majesty in the heavens,"[2] at the right hand of God the Father. How worthy a position for the Son of God, in whom both Creation and Redemption are centred! Pondering this thought, we close the dome, and terminate our night visit to the Observatory.

A Day Visit to the Observatory.

We enter the long lower room of the building near the hour of noon, and open the shutters on the south side of the Transit instrument. Against the wall opposite the instrument stands the sidereal clock, and close by a celestial globe. As the hour indicated by the clock is that of the stars which are at the moment on the meridian, we set the celestial globe by the clock. The position of the stars on the globe now corresponds exactly with the position of the stars in the surrounding heavens. Though hidden by daylight, they are there, just in the places shown on the globe. Elevating the Transit instrument to the sun's declination for the day, we wait till the solar orb enters the field of view, and watch with interest its punctuality to the moment when its outer limb is due on the central wire. We note the difference between the time of the diurnal revolution of the stars and of the sun. A star returns to the central wire of the Transit instrument in 23 hours 56 minutes 4 seconds, keeping steadily to the same interval; while the sun occupies 24 hours in its revolution, and does not keep to the same interval two days running, but is fast or slow according to the day of the year. Common clocks show mean solar time. The sun is faster than mean time, or slower, according to his anomaly. Here then is evidence of

[1] Eph. i. 21. [2] Heb. viii. 1.

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the enormous distance of the fixed stars and of the comparative nearness of the sun, of the elliptic form of the earth's orbit, and the variation of the speed of the earth's diurnal motion as it sweeps around the sun. All is orderly. Law reigns supreme.

Mounting the stairs to the upper room of the Observatory, we open the dome to the south, and direct the equatorial telescope to the sun. Having set the clockwork in motion which drives the instrument and placed a screen to receive the sun's image, the eyepiece being adjusted, a broad luminous disc falls on the screen. We get the proper focus for definition. There is the image of the sun, showing distinctly several sun-spots. We note their size and position, and that one of them is large enough to put the earth into. The earth is but 8,000 miles in diameter, while the diameter of the sun is 850,000 miles. Its surface is a sea of flame, on which the fire-waves leap up forty thousand miles and more in their tremendous surgings. We magnify one of the sun-spots, and show clearly the details of its form and structure, and the indications of its depth. And now bringing the spectroscope to bear, we contemplate the thousands of delicate lines which cross the solar spectrum at definite intervals, and recall some of the leading features of their significance. Oh, what a marvel is light! What wonders it contains, and what wonders it reveals as to the constitution of the objects from which or through which it shines! The presence in the sun of various substances with which the chemist is familiar is made certain by those transverse lines. Direct the spectroscope to the stars, and every star is seen to be a sun, and the unity of the physical universe is demonstrated.

Descending to the lower room of the Observatory, we observe a prism, a polariscope, and a microscope lying on the table. We adjust the prism so as to throw the solar spectrum on a screen. Each colour in the spectrum is now seen to have its own angle of refraction. White light is shown to

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be the combination of coloured lights possessing varied and contrasted powers. While the prism separates the component colours of the beam of white light, spreading out those colours or coloured lights—the red, the orange, the yellow, the green, the blue, the indigo, the violet—in the gorgeous spectrum, and the spectroscope reveals the transverse lines of absorption by which the spectrum is banded from end to end, the polariscope divides the single ray of light into two rays possessed of opposite or polar powers. Through examinations prosecuted by such means,—

"Light is viewed," says Professor Birks, "no longer as a substance emitted with amazing velocity from every luminous body. It is proved, by experiments and reasonings that appear decisive, to consist in the waves of a subtle and elastic ether, which pervades all space, and serves to communicate every impulse from one part of the universe to another with a speed almost inconceivable. The analogy between light and sound is thus completely restored. We hear by means of the air which surrounds us, and of its elastic vibrations, which generally escape the notice of our other senses; we see in like manner by means of an ether far more subtle and elastic, which extends even to the remotest star of the firmament. Our eye is curiously fashioned to detect and receive these delicate impulses, the waves of the luminous ether which travel on with amazing speed from every corner of the universe, and cross and recross, with an infinite complexity, yet without confusion, till a whole landscape paints itself by their means on the retina of the human eye. By delicate and ingenious experiments the length of these waves has been measured, and the nature and direction of their vibrations determined. Every wave can be analysed into two different parts, which complete each other, and which, while separate, are endued with peculiar properties, and are called polarized light, from an early hypothesis respecting their peculiar nature. A hundred experiments invented to test the theory have lent as many confirmations of its truth. It would result from it that two rays of light following at a certain distance must produce darkness, and darkness has been really produced. Combined in a different manner, they would produce a particular series of colours, and this series on trial has actually appeared. When reflected twice under particular conditions the theory teaches that the light will entirely disappear, and it does disappear under those very circumstances, and in those only. The theory has thus been confirmed by a countless variety of experiments beautiful in themselves, and still more beautiful and fascinating from the key which they have supplied to unlock some of the deepest mysteries of the natural universe."—*Treasures of Wisdom*, Prof. Birks, p. 99.

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Adjusting the polariscope lying on the table to the microscope, we now place slides containing various delicate crystals between the eyepiece and the mirror, crystals of quinic acid, hippuric acid, aspartic acid, citric acid, etc., and on looking through the instrument and adjusting to focus what wonders break on the view! What gorgeous forms and colouring, changing, too, as the polariscope is rotated, with splendours vying with those of a tropical sunset! And what light the experiment throws on the internal structure of these and other substances, the inward arrangements of the materials which "Nature builds up by her refined and invisible architecture, with a delicacy eluding our conception, yet with a symmetry and beauty which we are never weary of admiring"![1] Thus do we need to supplement the use of the telescope by that of the microscope. To scan the physical creation with the telescope alone is to distort the view of its real character. The perfections of the Divine workmanship are seen in the minute as well as in the gigantic, in the immeasurably little as well as in the immeasurably great. So great is God, that to Him there is nothing great in creation, and nothing little. And thus that volume which speaks in the sublimest, and yet in the simplest language to our hearts, declares of God that "He telleth the number of the stars," while it also says, "Even the hairs of your head are all numbered."

There are three classes of wonders: the wonders above our heads, the wonders beneath our feet, and the wonders in our hearts. The astronomer studies the first; the chemist, the mineralogist, the geologist, the botanist, the microscopist, study the second; the mental philosopher, the moralist, the Christian, study the third. In that box lying on the table are microscopic objects taken from dust by the wayside, from earth, from sand, from sea mud, from Atlantic ooze.

[1] "Natural Philosophy," Herschel, p. 263.

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Men trace the laws of mathematics in the dispositions of the stars. Were they to take the trouble to examine the common earth beneath their feet, they would find there equally marvellous exhibitions of forces acting according to mathematical laws. Take that glass slide for the microscope mounted by Möller, of Holstein. A little dust in its centre is all that can be seen on it by the naked eye. The name of the object is "Schlamm von Cuxhaven," or North Sea Mud, Cuxhaven. Place it beneath the microscope. Can astronomy show a more wonderful spectacle than it presents? Crowds of diatoms of various sizes and colours, and all mathematical in their forms; circles, radii, straight lines, triangles, spherical triangles, spheres, all of them perfect and all so beautiful, and glowing with the hues of the rainbow! Volumes might be written on mathematics in mud. Look at that deep sea ooze. On that microscopical slide is a thin film of mud from Atlantic soundings at 422 fathoms. Under the microscope it is a mass of delicate foraminifera! Compare those foraminifera with these microscopic shells from chalk dust by the roadside in Kent, and note the similarity. Look at the marvels in that infusorial earth from the Schockhoe Hill, in the United States, or these fossil diatoms from Virginia, or those diatoms from the soil of Oran, in Algiers. A little dust from beneath our feet may be more filled with marvels than all the treasure-houses of art. What are the works of man to the works of God?

But we must not linger here. Yonder sidereal clock warns us away as it measures audibly the flying moments. We have seen enough to teach us that Omnipotence works not only above us, but beneath; not only without, but within; not only in the gigantic, but in the minute; not only in the distant, but in the near!

As we turn from the table with the microscope our eyes fall on an instrument of special use in an observatory. It stands by a desk on which are piles of papers filled with

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figures. We lift the cover from the instrument, and expose to view a calculating machine, the Brunsviga, made by Grimme and Natalis, Brunswick. That instrument can add, subtract, multiply, divide, extract square root, etc., by a few revolutions of a small handle. And its work is unerring. By its means I have checked the astronomical tables otherwise calculated which I am now publishing. It saves both labour and time, and encourages the mathematician or astronomer to make calculations he would shrink from as too fatiguing without such an instrument. On these shelves and in these drawers are piles of calculations, either made or checked by its means, demonstrating the astronomical character of the Prophetic Times in the Book of Daniel.

The following letter from Mr. W. T. Lynn, a well-known astronomer, long connected with Greenwich Observatory, and versed in chronological questions, confirms the correctness of the Tables. After examining my Astronomical Tables, he writes, "I may now safely say that your Tables are abundantly accurate for all historical and chronological purposes, in many of which they will doubtless be found very useful. They have evidently been computed with great care and accuracy."

Before we leave the lower room of the Observatory we notice the cases of geological specimens which it contains. It is well to associate Astronomy and Geology. The one opens to us the immensities of space, the other those of time. If the one science belittles man, the other exalts him. Astronomy tells us we are physically nothing compared to the great world-masses around us. Geology teaches us that inorganic worlds themselves are as nothing to the organic wonders they contain; that the progress of nature is from the inorganic to the organized, the mental, and the moral; and that man is the goal and archetype of a progressive work of creation stretching through immeasurable ages.

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A Glance at the Instrument of Spiritual Perception, or the Christian Consciousness.

Having considered the employment of the telescope to scan the stars of heaven, and the microscope to examine the diatoms in the dust, let us terminate by glancing at the use of a nobler instrument, by which loftier worlds and greater wonders are brought into view—the Christian Consciousness. Our brief study of the powers and revelations of this instrument will form a suitable conclusion to the present chapter on the Moral Adjustment.

Man is endowed with "sense perceptions," "self perceptions," and "spirit perceptions."[1] By the first he perceives the outward physical world; by the second the inward mental and moral world; by the third the spiritual world. He thus becomes acquainted with Nature, himself, and God.

There are two forms of consciousness of the spiritual world, the one natural and universal, the other special and spiritual.

(1) The natural perception of the Spiritual World.

Every man is naturally religious. Religion, in some form or other, is universal. The universality of the knowledge of God, through His works, renders idolatry without excuse. "The invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead; so that they are without excuse."[2] Experience has proved that "the sense of the supernatural is as universal as the sense of the mundane." "Looking even superficially, but with earnestness upon human affairs," says Theodore Parker, "we are driven to confess that there is in us a spiritual nature which directly and legitimately leads to Religion; that as man's body is connected with the world of Matter, is rooted in it; has bodily wants, bodily senses to minister thereto, and a fund of external materials wherewith to gratify these senses and

[1] "The Spiritual World," Alfred Cave, D.D., p. 24. [2] Rom. i. 20.

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appease these wants; so man's soul is connected with the world of Spirit, is rooted in God; has spiritual wants, and spiritual senses, and a fund of materials wherewith to gratify these spiritual senses and appease these spiritual wants." Renan says, "If your vibrating faculties have never given out that great unique sound we call God, I have no more to say; you lack an essential element of your nature." Plato, in his *Republic*, said, "As the eye sees first the light and then the sun its source, so the mental vision opens first to the truth, and secondly to the Fontal Truth, the sun of the spiritual world, to God."[1] "Religion," says Dr. Fairbairn, "is not an invention or discovery, but a product, a growth from roots fixed deep in human nature and expanding according to natural laws."[2] Though possessed of an eye for the discernment of the spiritual world, man's view of it is darkened and distorted through the corruption of his moral nature. Only the "pure in heart" can "see God." "The natural man receiveth not the things of the Spirit of God, for they are foolishness unto him; neither can he know them, for they are spiritually discerned."[3]

(2) The spiritual perception of the Spiritual World.

This is abundantly set forth in Scripture, whose testimony is confirmed by experience. "Eye hath not seen, nor ear heard, neither have entered into the heart of man, the things which God hath prepared for them that love Him. But God hath revealed them unto us by His Spirit: for the Spirit searcheth all things, yea, the deep things of God. . . . We have received, not the spirit of the world, but the Spirit which is of God; that we might know the things that are freely given to us of God. Which things also we speak, not in the words which man's wisdom teacheth, but which the Holy

[1] Above testimonies cited in "The Spiritual World," by Dr. Cave Lecture VII.

[2] "Studies in the Philosophy of Religion and History," p. 303.

[3] 1 Cor. ii. 14.

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Ghost teacheth; comparing spiritual things with spiritual. . . . He that is spiritual judgeth (or discerneth) all things, yet he himself is judged (or discerned) of no man."[1]

The spiritual perception thus described may be termed the Christian Consciousness. It is present in all the truly regenerate. Being "born again," they "see the kingdom of God."

It is profoundly interesting to trace the production, character, and capacities of this spiritual faculty, and its essential identity in different individuals, and in different lands and ages. In their most fundamental features the experiences of all true Christians are alike. It would be possible to construct a bridge of unimpeachable testimonies concerning individual experiences spanning the last nineteen centuries without a single break,—a bridge of testimonies witnessing in every stone and arch to the realities of the spiritual world, the power of the gospel, and the identity of the Christian Consciousness from age to age.

The following are a few typical instances in which intelligence and a holy life combine to confirm personal testimony to Christian experience. Presenting as they do the salient elements of that experience at the crisis of conversion, they illustrate the first shining of spiritual light into the soul, described in the inspired words, "God, who commanded the light to shine out of darkness, hath shined in our hearts, to give the light of the knowledge of the glory of God in the face of Jesus Christ."[2] The contrast between the unconsciousness of spiritual things in the natural man, and the consciousness of spiritual things in the spiritual man, can be seen with great distinctness in this crisis of transition from the one state to the other.

1. The conversion of Augustine as narrated in his "Confessions."

After much conviction of sin for years one day he was led in a remarkable manner to take up the New Testament. The first words on

[1] 1 Cor. ii. 9–15. [2] 2 Cor. iv. 6.

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which his eyes fell on opening the book were those in Paul's Epistle to the Romans, "Let us walk honestly, as in the day; not in rioting and drunkenness, not in chambering and wantonness, not in strife and envying. But put ye on the Lord Jesus Christ, and make not provision for the flesh, to fulfil the lusts thereof." "Immediately on reading these words an end was put to his perplexing conflict. He found his whole soul, by the power of Almighty grace, subdued to the will of God, and fixed in a resolution to cleave to Him, and forsake sin, with an assured composure with respect to the success he should have therein through Jesus Christ." He says, "Having read these verses I would read no more, nor was there any need that I should. For on the end of that sentence, as if a light of peace or security had been infused into my heart, all darkness of doubts fled away. Marking the book with my finger put into it, or by some other sign, I shut it, and with a quiet countenance declared what was done to Alipius; on which he also declared what was at work in himself whereof I was ignorant. He desired to see what I had read, which when I had showed him he looked further than I had read, nor did I know what followed, but it was this, 'Him that is weak in the faith receive,' which he applied to himself, and declared to me. Confirmed by this admonition, with a firm purpose and suitable to his manners wherein he formerly much excelled me, he was united to me without delay. Upon this we go to my mother (Monica) and declare what was done; she exulteth and triumpheth, and blesseth Thee, O God, who art able to do for us more than we know how to ask or understand."

2. The conversion of Martin Luther.

"O my sin! my sin!" cried the young monk in the presence of Staupitz. "Well," said the latter, "would you only be a sinner in appearance and have also a Saviour only in appearance? Know that Jesus Christ is the Saviour even of those who are great, real sinners, and deserving of utter condemnation. . . . Look at Christ's wounds, and then you will see God's counsel towards man shine brightly forth. We cannot understand God out of Jesus Christ. In Him, the Lord hath said, you will find what I am, and what I require. Nowhere else, neither in heaven nor in earth, will you discover it. . . . Let the study of the Scriptures be your favourite occupation." "Never was good advice better followed out. What particularly delighted Luther was the present Staupitz made him of a Bible. Henceforward he studies the Scriptures, and especially the Epistles of Paul, with ever-increasing zeal. To these he adds the works of St. Augustine alone. All that he reads is imprinted deeply in his mind. His struggles have prepared his heart to understand the word. The soil has been ploughed deep: the incorruptible seed sinks into it with power. When Staupitz quitted Erfurth a new dawn had risen upon Luther."[1]

[1] D'Aubigné's "History of the Reformation," p. 63.

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3. The conversion of David Brainerd.

He remained exercised, unhappy, and at times miserable, under law for a year or more, sometimes full of angry opposition to God and His sovereignty, under the sharp convictions of the Spirit, until on Sunday evening, July 12, 1739, walking in a solitary place trying to pray, "though being as I thought very stupid and senseless for near half an hour (and by this time the sun was about half an hour high as I remember), then as I was walking in a thick dark grove unspeakable glory seemed to open to the view and apprehension of my soul. I do not mean any external brightness, for I saw no such thing; nor do I intend any imagination of a body of light, somewhere away in the third heavens, or anything of that nature, but it was a new inward apprehension or view that I had of God, such as I never had before, nor anything which had the least resemblance to it. I stood still, and wondered, and admired! I knew that I never had seen before anything comparable to it for excellency and beauty; it was widely different to all the conceptions that ever I had had of God, or things Divine. I had no particular conception of any one person in the Trinity, either the Father, the Son, or the Holy Ghost, but it appeared to be the Divine glory that I then beheld, and my soul rejoiced with joy unspeakable to see such a God, such a glorious Divine Being; and I was inwardly pleased and satisfied that He should be a God over all for ever and ever. My soul was so captivated and delighted with the excellency, loveliness, greatness, and other perfections of God, that I was even swallowed up in Him; at least to that degree that I had no thought, as I remember, at first about my own salvation, and scarce reflected there was such a creature as myself. Thus God, I trust, brought me to a hearty disposition to exalt Him, and set Him on the throne, and principally and ultimately to aim at His honour and glory, as King of the universe. I continued in this state of inward joy and peace, yet astonishment, till near dark, without any sensible abatement, and then began to think and examine what I had seen, and felt sweetly composed in my mind all the evening following. I felt myself in a new world, and everything about me appeared with a different aspect from what it was wont to do. At this time the way of salvation opened to me with such infinite wisdom, suitableness, and excellency, that I wondered I should ever think of any other way of salvation, was amazed that I had not dropped my own contrivances, and complied with this lovely, blessed, and excellent way before. If I could have been saved by my own duties, or any other way that I had formerly contrived, my whole soul would now have refused. I wondered that all the world did not see and comply with this way of salvation entirely by the righteousness of Christ."

4. The conversion of Jonathan Edwards.

"The first instance that I remember," says Edwards, "of that sort of

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inward sweet delight in God and Divine things, that I have lived much in since, was in reading those words, 1 Timothy i. 17: 'Now unto the King eternal, immortal, invisible, the only wise God, be honour and glory for ever and ever. Amen.' As I read the words there came into my soul, and was as it were diffused through it, a sense of the glory of the Divine Being; a new sense quite different from anything I ever experienced before. Never any words of Scripture seemed to me as those words did. I thought with myself how excellent a Being that was, and how happy I should be if I might enjoy that God and be rapt up to Him in heaven, and be as it were swallowed up in Him for ever. The heaven I desired was a heaven of holiness. . . . The soul of a true Christian, as I then wrote in my meditations, appeared like such a little white flower as we see in the spring of the year, low and humble on the ground, opening its bosom to receive the pleasant beams of the sun's glory, rejoicing as it were in a calm rapture, diffusing around a sweet fragrancy, standing peacefully and lovingly in the midst of other flowers round about, all in like manner opening their bosoms to drink in the light of the sun."

5. The conversion of Charles Simeon.

While still a most ungodly and wicked youth he entered college, January 29, 1779, and the third day afterwards was told that he would be expected in about three weeks to attend the Lord's Supper. "The thought rushed into my mind that Satan himself was as fit to attend as I, and that if I must attend I must prepare for my attendance there. Without a moment's loss of time I bought 'The Whole Duty of Man,' the only religious book I had ever heard of, and began to read it with diligence, at the same time calling my ways to remembrance, and crying to God for mercy; and so earnest was I that within three weeks I made myself quite ill with reading, fasting, and prayer." He continued to read and pray, very miserable, and at times envying the very dogs because blessed with mortality. After three months, when in passion week, "I was reading," he says, "'Bishop Wilson on the Lord's Supper,' and met with an expression to this effect, 'that the Jews knew what they did when they transferred their sin to the head of their offering.' The thought rushed into my mind, What! may I transfer all my guilt to another? Has God provided an offering for me, that I may lay my sins on his head? Then, God willing, I will not bear them on my own soul one moment longer. Accordingly I sought to lay my sins upon the sacred head of Jesus; and on the Wednesday began to have a hope of mercy; on the Thursday that hope increased; on the Friday and Saturday it became more strong, and on the Sunday morning, Easter Day, April 4, I awoke early with these words upon my heart and lips, 'Jesus Christ is risen to-day! Halleluiah! Halleluiah.' From that hour peace flowed

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in richest abundance into my soul, and at the Lord's table in our chapel I had the sweetest access to God through my blessed Saviour."

6. The conversion of John Weitbrecht, missionary to India.

After various afflictions and convictions while at Stuttgart, he says: "The powerful and evangelical preaching of the sainted Holfacher revealed to me more and more of the plague of my own heart, and after many an internal struggle, and much earnest prayer, the blessed hour arrived when I was to find Christ, and be united to Him, to be separated no more. Never shall I forget that Good Friday, when on kneeling at His table He truly manifested Himself unto me in the breaking of bread, imparting to me the happy assurance that all my sins were annihilated, that I had a new heart given me, a new spirit put within me, a lively faith, a full and complete pardon. Then followed that precious peace which 'passeth all understanding,' and that 'joy which no man taketh from us.'"

7. The conversion of Pascal.

The following words were written by Pascal, and worn by him (the paper original being folded in a parchment copy) till the day of his death: "The year of grace 1654. Monday 23 Nov. Day of St. Clement, Pope and Martyr, and others in the martyrology. Eve of St. Chrysogone, martyr, and others. From about half past ten in the evening to half past twelve. Fire. God of Abraham, God of Isaac, God of Jacob, not of the philosophers and savants. Assurance, assurance. Feeling, joy, peace. God of Jesus Christ, my God and your God. Thy God shall be my God. Forgetfulness of the world and all but God. He is found only by the ways taught in the Gospel. Greatness of the human soul. Righteous Father, the world hath not known Thee, but I have known Thee. Joy, joy, joy, tears of joy. I have separated myself from Him. They have forsaken me, the fountain of living waters. My God wilt Thou forsake me? Let me not be separated from Him eternally. This is life eternal that they know Thee the only true God, and J. C. whom Thou hast sent. Jesus Christ, Jesus Christ, I have separated myself from Him. I have fled from, renounced, crucified Him. Let me never be separated from Him. He is retained only by the ways taught in the gospel. Renunciation, total and sweet."

The Christian consciousness, whose secret and sacred actings are described in the foregoing testimonies, can be traced in the history of innumerable individual experiences. The literature of the subject is immense. Thousands of Christian biographies exist in which the inner life of the regenerate is unveiled; and, moreover, there are millions

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of persons now living throughout the world who are possessed of such experiences. There is ample material then for the study of the subject, though its real meaning can only be properly understood by deep personal experience of the Christian life.

On analysing the Christian consciousness, we observe the following leading features :—

(1) Its directness.

By this we mean its intuitive character. It is an intuition. It reaches its results without a process of reasoning or inference. It is an instrument of vision ; it sees.

(2) Its dependence on external Revelation.

This can be clearly traced in the foregoing cases, and in all Christian experience. As the eye of the body needs light in order to the exercise of its powers, so the eye of the soul needs the light of Revelation, in order to behold the realities of the spiritual world. The Christian consciousness does not take the place of Revelation. The telescope does not enable us to dispense with light, it only collects and uses it. Without external light the instrument is useless.

(3) Its threefold division corresponding with the powers of the mind.

There is a threefold division of the powers of the Christian consciousness, corresponding with the commonly recognised threefold division of the powers of the human mind, as those of thought, emotion, and will. Every man thinks, feels, and wills, and is directly conscious that he does. Every true Christian thinks, feels, and wills in a special manner, as no one does who is not a Christian, and is directly conscious of the fact. In the foregoing, and countless similar cases can be seen the illumination of the intelligence, the quickening of the emotions, and the renovation of the will. The illumination consists in the impartation to the human mind of light and powers to apprehend the Divine mind ; the mind of man becomes acquainted with the mind of God. Such

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is evidently the teaching of the Apostle Paul in 1 Corinthians ii. 16. The true Christian has "the mind of Christ" in the sense of possessing Divine conceptions. He has also "the mind of Christ" in the sense of moral character; "let this mind be in you which was also in Christ Jesus." True Christians feel and will in harmony with Christ; they are conscious of the inward presence and power of "love, joy, and peace." "Whom having not seen ye love; in whom though now ye see Him not, yet believing, ye rejoice with joy unspeakable and full of glory."[1] "Being justified by faith, we have peace with God." "Be careful for nothing; but in everything by prayer and supplication with thanksgiving let your requests be made known unto God, and the peace of God, which passeth all understanding, shall keep your hearts and minds through Christ Jesus."[2] These blessed Divine emotions can be traced in each of the foregoing narratives of genuine conversion. What fires of sacred feeling glow in Pascal's experience; what lowly sweetness in Edwards; what love, joy, peace and harmonization of the will with the will of God in the case of Brainerd! The heart of the true Christian "hungers and thirsts after righteousness." He can say, "I delight to do Thy will, O God; yea, Thy law is within my heart."

But it is well to recognise that no analysis of the Christian consciousness under the divisions of thinking, feeling, and willing, can completely represent the composite reality. Where, under such a division for example, can be placed "the spirit of adoption, by which we cry Abba, Father"? Yet there is no feature more characteristic of the really renewed than the presence of this filial spirit; "the Spirit itself beareth witness with our spirit that we are the children of God."[3] Where too can the leading of the Spirit be placed? "As many as are led by the Spirit of God, they are the sons of God."[4] And where the filling of the Spirit?

[1] 1 Pet. i. 8. [2] Phil. iv. 6, 7. [3] Rom. viii. 16. [4] Rom. viii. 14.

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Have we never read in Christian biography about being filled with the light and power of the Holy Ghost? Even short of the "visions and revelations of the Lord" granted to certain Old and New Testament saints, it is evident that unutterable heights of blessed experience are attainable by believers abiding in Christ. Witness the promise, "If a man love Me, he will keep My words; and My Father will love him, and we will come unto him, and make our abode with him."[1] "If any man hear My voice, and open the door, I will come in to him, and will sup with him, and he with Me."[2] "Did not our heart burn within us, while He talked with us by the way, and opened to us the Scriptures?"[3]

(4) Its certainty.

The true Christian is as conscious of such experiences as he is of his own existence, or of the existence of the world around him. When "the eyes of the understanding" are opened to "the things of the Spirit" we can say like one of old "one thing I know, that, whereas I was blind, now I see."[4] No objections on the part of those who are still spiritually blind can shake our certainty in the matter; "We have known and believed the love that God hath to us."[5] "We know that we are of God, and that the whole world lieth in wickedness."[6] "We know that we have passed from death unto life."[7] The world cannot receive "the Spirit of truth," "because it seeth Him not, neither knoweth Him; but ye know him; for he dwelleth with you, and shall be in you."[8] Those who believe in Christ know they believe; those who love Him supremely know they do; those who obey His word are conscious of the fact; those who follow Him know it. "My sheep hear My voice, and I know them, and they follow Me"; and "I am known of mine."[9] The Christian con-

[1] John xiv. 23. [2] Rev. iii. 20. [3] Luke xxiv. 32.
[4] John ix. 25. [5] 1 John iv. 16. [6] 1 John v. 19.
[7] 1 John iii. 14. [8] John xiv. 17. [9] John x. 14, 27.

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sciousness then is a direct, personal, indestructible, spiritual, intuition, by which the illuminated and renewed perceive spiritual realities, without and within themselves; on the one hand they know God in Christ, and on the other they know or perceive His image in themselves and in others; the knowledge and the image are imperfect, but they are most real, and are growing to perfection. And thus built by Divine operation "the foundation of God standeth sure." The "testimony of God" carried home to mind, heart, and conscience in "the demonstration of the Spirit," is the ground of saving faith; such a faith does not "stand in the wisdom of men, but in the power of God." "The true foundation of faith," says Hodge, "or rather the foundation of true faith, is the power of God, . . . or the powerful operation of the Spirit bearing witness with, and by the truth in our hearts. A faith which is founded on the authority of the Church, or upon arguments addressed to the understanding, or even the moral power of the truth as it affects the natural conscience, such as Felix had, is unstable and inoperative; but a faith founded on the demonstration of the Spirit is abiding, infallible, and works by love, and purifies the heart."[1]

[1] Commentary on 1 Cor. ii.

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General View of the Moral Adjustment.

In tracing the connection of the Natural with the Revealed, we have shown that there is not only a *dependence* of the natural order of things on the supernatural and spiritual (Part I. ch. 1) and an *analogy* of the one to the other (Part III. sec. 3), but also a profound *adjustment* between them (Part III. *from* p. 177); that geology, history and prophecy are "three chapters of one book, three sections of one map, three acts of one great drama"; that the geologic glides into the historic, and the historic into the prophetic without any rigid line of separation; that geology is simply earlier history, and prophecy anticipated history; that century after century the prophetic becomes the historic by its fulfilment; that the goal of the geologic movement is in the historic, and the goal of the historic in the prophetic, which is therefore the goal of the whole; and that thus the course of Nature which had its beginning in the supernatural and spiritual has also in these its end. We further showed that the movements of history are so adjusted to the work of Redemption as to have their centre of convergence and divergence in the cross of Calvary, and their prophetic end in the kingdom of Immanuel. We showed under the astronomic adjustment that the chronology of history, and especially the revealed chronology of Redemption history is co-ordinated with the revolutions of the sun, moon, and planets, or with the revolutions of the entire solar system, and so closely and accurately co-ordinated that the Natural order of times can be derived from the Revealed (Introd. p. xxxii., p. 379, and Tables of vol. II.). By these adjustments the course of Nature and History, and that of the Revealed Redemptive Dispensation constitute a single series of events having a common sphere, a common progressive character, a common chronology, and a common end; and, further, as in every organization, all the parts and organs are mutually means

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and ends (as in the human body the hand is a means serving the body, and also an end served by the body)—so the Natural order of things both serves the supernatural order, and is served by it; the two orders being mutually adjusted and constituting an organic whole. In this relation we showed that the Mediatorial System of reconciliation and renewal set forth in Revelation is Divinely adapted to meet man's deepest needs. It is no idle theory, but has acted with transforming effect on the character and conduct of individuals and nations on a world-wide scale; exhibiting an energy comparable with the "vast material forces" of Nature, "the most real historic power which for centuries has controlled the grandest evolution upon the earth, the historic development of the human race." The contemplation of this adjustment is calculated to fill the mind with a sense of awe arising from the perception of the highest operations of the Divine government. We stand in the presence of a reconciling and renovating power manifestly and pre-eminently Divine. We see the transforming influence of "the life of God in the soul of man," and feel "the mysterious consciousness of an unearthly presence" in our own experience, and realize in a way no language can adequately express that "God was in Christ reconciling the world unto Himself," and is now by His Spirit renewing the world which His self-sacrifice has reconciled.

But the moral adjustment of the Revealed is not merely an adjustment to human needs, but to objects of a wider and more universal kind. The ruin of the world is connected with the fall of angels, and the redemption of the world with the stability of the moral universe. The sin of angels reaches its acme, and its most dreadful effect in the cross of Christ which forms a moral barrier to its further advance. Christ was crucified by sinful men acting under the instigation of fallen angels. Satan was the chief instigator of Judas, and Caiaphas, and Herod and Pilate. The chief

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enemy overcome by the Incarnate Son of God is "the Prince of this world,"[1] "the Spirit that now worketh in the children of disobedience."[2] The warfare of Christ and of His people is "not against flesh and blood but against the principalities, against the powers, against the world rulers of this darkness, against the spiritual hosts of wickedness in the heavenly places."[3] By the action of Christ, Satan is overcome, cast out, judged, condemned, and his kingdom brought to nought. The cross is the focus of a battle between the powers of light and darkness extending far and wide throughout creation. How many are the powers and even the worlds involved in the conflict we have no means of estimating. A kingdom of evil, reaching probably far beyond the confines of the solar system, is thus plucked up by the roots and extirpated. And at the same time new and marvellous features are revealed in the character of God. Rays of mercy are seen which never shone before. The splendour of a moral sunrise beams on the entire creation, irradiating the most distant worlds. God is personally and providentially revealed as never before. Angels who stood nearest to Him are admitted to still nearer relationship. They are drawn towards Him with profounder interest, and more tender affection. They see Him revealed in human form. They gaze on the redemption and restoration of a ruined world, and they help in every stage of the glorious work. They aid in the conflict with the hosts of evil, they predict its issues, they celebrate its progress, they rejoice in every temptation vanquished, every soul restored, and every triumph won. They devote themselves to the service of the world's Redeemer. They speed here and there at His bidding, as "ministering spirits sent forth to do service for the sake of them that shall inherit salvation."[4] The reflex influence of such revelations and such employments on the hosts of unfallen angels is incalculable.

[1] John xiv. 30. [2] Eph. ii. 2. [3] Eph. vi. 12. R.V.
[4] Heb. i. 14. R.V.

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Engaged with the Son of God in this great conflict, and sharing its victory, they make their election sure, and they mingle for ever their songs of praise and worship with those of men redeemed, crying, "Worthy is the Lamb that hath been slain, to receive the power, and riches, and wisdom, and might, and honour, and glory, and blessing."[1] Heaven itself becomes doubly heaven to the hosts of heaven through the restoration of the lost, for there is more joy among the angels of God over the one world which repented and was restored, than over the innumerable worlds which need no repentance.

[1] Rev. v. 12. R.V.

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SUMMARY OF THE ARGUMENT.

Evidence is given in this volume for the view (1) That Nature is the work of God; (2) that Scripture is the word of God; (3) that Nature is centred in the system of things set forth in Scripture, which in its turn is centred in Christ.

First, the Polytheistic, Pantheistic, Atheistic, and Agnostic theories of Nature are briefly shown to be untenable, and the *Theistic* view confirmed by the voice of Reason and Conscience.

Secondly, *the need of Revelation* is proved from the schism which exists in the human soul, revealed in the constant warfare between duty and inclination. It cannot be denied that while man approves the better he follows the worse, that "man knowing evil to be evil, nevertheless does it," that by his own confession he is the slave of sin; that he wholly lacks the power either to arrest the disorders in external nature, or to remove the evils which exist in the moral world; and that both Natural Religion and Philosophy have utterly failed to "enlighten, console, and regenerate" mankind. Natural religion has no fulcrum by which to lift the world, while Philosophy openly confesses its ignorance and impotence.

Revelation responds to the cry of human need. In the summary of evidences proving the Bible to be a revelation from God, the main branches of evidence are grouped according to their historic principle of connection. The civil and religious history of the Jews, and the witness of prophecy and miracles are briefly treated under the head of *External evidences*, while under that of *Internal evidences*, or evidences of a moral and spiritual character, the superiority of the religion of the Bible to all other religions of the world, and the superiority of the Christian religion to Judaism and to Philosophy are exhibited. It is shown that in the character of Christ, superhuman power, superhuman knowledge, and superhuman goodness are united in a manner truly incom-

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parable and divine. The argument for the truth of Christianity from the life and character of the Apostle Paul is presented; and lastly, the evidence of Christian experience is described—the facts of spiritual illumination and moral renovation in multitudes of individual Christians, and the witness of the history of the Christian Church to the gospel as a power which has overcome, renewed, liberated, and elevated the world. The combination of these evidences, external and internal, is represented as the most central and commanding feature of their strength. The proof of Revelation is cumulative. Each separate proof is conclusive, while the combination of their testimonies imparts to the complex structure of witness the highest harmony and strength.

Thirdly, *the Connection of the Natural and Revealed* is investigated. The testimony of Scripture as to the relation of creation to Christ is in the first place presented, and the testimony of Nature is then adduced as confirming it, and casting light on its significance. The *law of Centralization* is shown as prevailing in *Nature*, in *Revelation*, and in *the relation of the one to the other.*

(*a*) Centralization prevails in *Nature* in the Heliocentric principle, according to which the Sun is the centre of light, heat, and motion to the planetary worlds. The Solar principle extends to the sidereal universe, every star being a sun radiating light and heat. Centralization is seen in the law of *gravitation*, or the tendency of bodies to gravitate to a point as to a centre; in the law of *crystallization*, by which mineral matter assumes symmetric forms around centres of arrangement; and in the law of *organization*, according to which the plant grows from a centre, the highest plants being the most perfectly centralized. Animals have in addition to a centre of life a centre of motion, and animal perfection is proportioned to the concentration of the central masses of the nervous system. The same law prevails in the *moral* world. A society is a union of individuals tending to develop ever

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advancing co-ordination. Families unite into tribes, tribes into nations, nations into kingdoms, kingdoms into empires or confederacies. In the moral world the central law is the law of love. As applicable to all moral beings no higher or greater law can be conceived. The law of love is a law of unity. Centralization in Nature is further exhibited in the *hierarchical* character of its system, according to which the inorganic subserves the organized, the vegetable kingdom subserves the animal, and both subserve the interests of man. The material world subserves the mental, and the physical the moral, while in the realm of mind all is subordinated to moral law, conscience being placed in man's nature to be his proper governor, "to direct and regulate all under principles, passions, and motives of action." As securing the restoration and establishment of the supremacy of moral law, revealed religion is in *continuity* with the Natural system, and rests on the immovable rock of man's moral nature, and the indisputable facts of his history and experience.

(*b*) The law of centralization similarly prevails in *Revelation*. As the book of Redemption the Bible is characterised by the unity of its theme. The history of Redemption which it unfolds exhibits "many successive works and dispensations of God all tending to one great effect, united as the several parts of a scheme, and all together making up one great work." The person of the Redeemer is the centre of Revelation, and the Mediatorial principle the centre of Theology. The death and resurrection of Christ are the central facts of redemption. The three steps in the progress of New Testament doctrine relating to the person and atoning work of Christ, the formation of His body or Church, and the manifestation of His Kingdom, correspond with successive stages in the gathering together of all things in Christ, shadowed forth by the Jewish ordinances of Passover, Pentecost and Tabernacles. The central principle in Redemption, as in Nature, is the principle of Love, the love revealed in Jesus

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Christ. "Christianity is only love revealed under its highest form."

(*c*) Centralization not only prevails in the natural and Revealed viewed separately, but *in the relation of the one to the other*. The two systems are united by multiplied analogies and adjustments; the types and initial movements being found in the natural, the archetypes and final causes in the Revealed.

I. THE LAW OF ANALOGY is shown to prevail in Nature, in Revelation, and in the relation between the two.

In *Nature* Analogy prevails in Mineral forms, in the structure of plants and animals, in the development of number, and in periodic times. Lower kingdoms are analogous with higher, the mineral with the vegetable, the vegetable with the animal. The lower animals foreshadow man. Instinct in the animal world is typical of reason in man. Man is the archetype not only of the animal creation, but of the physical world.

In *Revelation* Analogy prevails in the language of imagery, in the similitudes, types, symbols, parables, employed to picture spiritual truths; in the typical acts, ceremonies, and offices of the Jewish religion; and in the history of Patriarchal and Jewish times; the whole typical system *converging to a centre in Christ*, who is the Archetype of the old, and the Prototype of the new; His history being the prototype of the history of the regenerate, and His nature the prototype of theirs. As the whole system of typology in the Natural world converges to a common centre in Man, so in Revelation in the Son of Man.

Analogy which holds the position of a universal law both in Nature and in Revelation, prevails also in their *mutual relation*. The physical order of Nature is analogous to the mental and moral. All language, and especially the language of poetry, is based on this correspondence. The use of analogy

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in Scripture language involves the principle of the pre-adaptation of Nature to the reflection of spiritual realities. Nature is "the Great Parable." The natural world is analogous to the revealed in the absence on the surface of systematic arrangement; in the association of clearness and obscurity; in the presence of an ordered constitution; the existence of a hierarchical order; in the prevalence of the principle of union; in the fact of a mono-centric order; in the reign of the prospective principle; in the existence of a progressive plan, including a series of dispensations; in the presence of prophetic types; in the prevalence of the parental relation; in the reign of the retributive principle; in the operation of the remedial principle; in the vicarious principle; in the indwelling or temple principle; in the place of the intuitional principle; in the operation of the inner law principle; in the principle of progressive liberation; in the existence of an ascending order of increasing complexity; in the principle of conflict; and in the palingenetic principle. These analogies involve the archetypal character of the revealed, and the convergence of types both natural and revealed to one Central Archetype. The main conclusions to which we are thus led may be summarised as follows:—

Every object in Nature and Revelation is distinguished by type, and the types united by a law of Analogy, linking the earlier with the later, and the lower with the higher; the archetypes of the natural order being found in the Revealed, while the whole typical system converges to a central Archetype, being Christo-centric in character—a system combining infinite variety with perfect unity, exhibiting a harmonious plan intelligibly connected in all its parts.

II. THE LAW OF ADJUSTMENT similarly prevails in *Nature*, in *Revelation*, and in *the relation between the two.*

In *Nature* all things are mutually adjusted, mass to mass, motion to motion, element to element. The solar system is

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composed of a number of mutually adjusted worlds. In the "affections, attractions, and forces" of the chemical elements there is a "balance of harmonies." Inorganic nature is adapted to the organic world, while in organized Nature there is a mutual adjustment of parts, functions, classes, and kingdoms. The entire physical system is adjusted to the mental and moral world; the faculties of the mind to the order prevalent in Nature.

In *Revelation* the same law is seen throughout as in the adjustment of the law and prophets, and the whole preparatory system of Judaism to the system of Christianity erected on these as a building on its foundation.

Lastly, adjustment prevails in the *mutual relation* of the Natural and Revealed.

(1) This includes the *Geological* adjustment, or connection of geology, history, and prophecy as three chapters of one book, three sections of one map, three acts of one great drama. Geology which teaches us that the antiquity of the earth is great beyond conception, tells us nothing of its origin. It bears a clear testimony to a beginning of terrestrial life, a commencement of organized existence, shows that there have been several distinct economies of life terminating in man, who is the archetype of the animal creation; that during the long series of ages prior to man's appearance God was making preparation for his wants; that an anticipation of death—the wages of sin—runs through the geologic past, the consequences having preceded in the rational order of the world, their grounds or occasions, and that in the character and succession of the animal kingdoms there is a foreshadowing of human history. Reason teaches us that man as a corrupt and mortal being is unsuitable to be the goal of the divinely directed movement of terrestrial advance, while *the appearance in history of a new and nobler type of man, realizing the ideal of perfect likeness to the Divine Image*, introduces that higher order of things to which terrestrial progress has

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pointed from the commencement. The perfection of the character of Christ, and the sinlessness of His life, combined with His claim to be Divine, separate Him from humanity as a Being of a higher order. We cannot believe in His wisdom and holiness while rejecting His testimony as to His own character and mission. The development of the new race of which He is the Founder and Head, has been in progress for more than eighteen centuries. The disciples of Christ form a multitude of all nations which no man can number, and the power and unconquerable tenacity of their spiritual life demonstrate it to be Divine. The kingdom of God revealed in prophecy as the final outcome of redemption is the goal of the long story of the earth and man. In the records of Nature and Revelation we see the same progressive movement from lower to higher stages; the same vastness of preparation, the same loftiness of outlook, the same moral end, the same measurelessness of duration. The series of events in the one stretches through the almost interminable past, and in the other through the altogether interminable future. The two series of events are united by the closest continuity, and by the enduring dominion of a common End.

(2) There is further a remarkable *Historical adjustment* connecting the natural with the revealed. Christ, who is the manifest centre of Jewish and Christian history, is also the centre of Gentile history. Human history as a whole, "has no other centre of convergence and divergence than the Cross on Calvary, no other prophetic end than the Kingdom of Immanuel." All the great events of history are connected with man's redemption, their efficient or final cause. Thus all things in history are subordinated to the mission of Christ, and form but "parts of one connected and orderly series," of which the Divine glory is the goal.

(3) *Astronomical adjustment* connects the times and seasons of Nature with those of Revelation. A *numerical* order underlies the chronological, and the use of number in scrip-

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ture harmonizes with its use in Nature. Four is the symbol of the natural, one and three of the Divine; and the combination of these numbers in the fivefold, sevenfold, and twelvefold, underlies the application of these latter to the redemption order which is characterized by the union of the natural with the Divine. Octave numbers in Scripture have a palingenetic significance, and are prominent in solilunar chronology in cycles connected with epact development.

The law of *analogy* which prevails in Revelation regulates its times and seasons. The series of revealed redemption Times, Patriarchal, Jewish, and Christian, is one of weeks on various scales adjusted in magnitude to special ends. One septenary ratio regulates the whole. Analogous changes are accomplished in analogous times.

In the Astronomical Canon of Ptolemy the chronology of the four empires of prophecy possesses a historic and scientific basis. Ancient dates in Ptolemy's Almagest are interwoven with celestial positions. "The astronomic can be rigidly verified, and the truth of the historic is a legitimate deduction." Between the historical and chronological outline given in the Canon of Ptolemy, and that set forth in the fourfold image of Nebuchadnezzar's vision, there is a striking and important agreement. The central date in Redemption chronology is that of our Lord's Passion. "Nowhere in the first five centuries," says Ideler, "do we find any other consular date of the death of Christ than the year of the two Gemini (A.D. 29), except in the Greek writer Epiphanius." The day in A.D. 29 on which the 14th of Nisan, or day of the full moon, and Pascal ordinance, coincided with Friday, was March 18th. A.D. 29 falls in the 800th lunar year from the Nabonassar era; and in the midst of the last of the "70 weeks" of Daniel, reckoned in solar and lunar years from the Persian decree to restore Jerusalem in the days of Ezra and Nehemiah. From Palm Sunday,

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A.D. 29, to the day of the destruction of the Temple, A.D. 70, the interval is 15,120 days, or 42 prophetic years, a period analogous with the 15,120 months in the 1,260 years of prophecy. It is a remarkable fact, and one first observed by the author of the present work, that 15,120 lunations, or 1,260 lunar years, extended from the era of Nabonassar, February 26, B.C. 747, to the fall of Romulus Augustulus (end of the Western Roman Empire), August 22, A.D. 476. This period occupies the first half of the "seven times" of the four empires, as measured in lunar years.

Cyclical Character of the Prophetic Times. Discoveries of M. de Cheseaux.

The adjustment of Natural Times to Revealed is only a higher form of chronological adjustment analogous to the adaptation of the revolutions of inorganic Nature to those of the organized and intelligent world. While days, months, and years have been appointed by the Creator of the universe to be the primary measures of terrestrial time, these three natural periods have never been closely and systematically adhered to by mankind. An artificial day has commonly been substituted for the natural day, an artificial month for the natural month, and an artificial year for the natural year. The explanation of the fact evidently lies in the *incommensurateness* of these three fundamental measures of time. In contrast with the mass of civil calendars the divinely instituted Levitical calendar closely and consistently adheres to the revolutions of Nature. The time order of Nature is suited to the exigencies of revealed chronology. "The natural measures of terrestrial time—days, months, and years—are incommensurate periods whose fractional differences give rise by accumulation to a series of cycles, constituting a definite, complex, far-reaching course of time, which, while unsuited as a whole to the uses

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of the civil calendar, is adjusted in all its parts and order to the times and seasons of revealed Redemption Chronology."[1]

The perplexities and difficulties which encumber the attempt to adapt brief periods of time to both solar and lunar movements, as in the Civil calendar, disappear directly it is a question of longer intervals. Short periods have to be artificially harmonized, longer ones harmonize themselves. There exist various periods, which are naturally measurable both by solar years and lunar months, without remainder, or with remainders so small as to be unimportant. Such periods are therefore soli-lunar cycles. They harmonize with more or less exactness solar and lunar revolutions, and may be regarded as divinely appointed units for the measurement of terrestrial time. About the middle of last century, M. de Cheseaux, a Swiss astronomer, discovered the important fact that the prophetic periods 1,260 and 2,300 years are such soli-lunar cycles, and that the difference between these two periods, 1,040 years, is the largest accurate soli-lunar cycle known. From 1754 to 1811 M. de Cheseaux's discoveries seem to have dropped out of sight. In the latter year Mr. William Cunninghame, of Lainshaw, in Scotland, noticed a reference to De Cheseaux's discoveries in the writings of M. Court de Gibelin, and called attention to them in an article in the *Christian Observer*. In 1833 Mr. Cunninghame published a letter in the *Investigator* describing his finding a copy of M. de Cheseaux's work after twenty-two years' unsuccessful search. Professor Birks, of Cambridge, subsequently embodied a brief account of De Cheseaux's discoveries in his valuable treatise on the "Elements of prophecy." It was when reading this work, just after the fall of the Papal temporal power in 1870, that my attention was arrested by that portion of it referring to these remarkable cycles, and I was consequently led to investigate their character with considerable care, and in

[1] P. 324.

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doing so made a number of chronological discoveries, some of which I have since published in my writings on the fulfilment of prophecy, while others are embodied in the present work. Among these one of the most important is the law which regulates the ratio of vital periodicity to Messianic and historic times.

Central Chronological Elements.

The Central elements in the revealed Time System are the month of years, and week of years. The former, which is a growth period recognized in revelation, extended from the birth to the baptism of Christ; the latter was connected with the duration of Christ's ministry, and the time of His death. The combination of the month of years and half-week of years constitutes the 33½ years' period measuring the earthly lifetime of our Lord.

It is a well-known fact that "the average of human life is about 33 years." In condescending to live 33 years on earth, our Lord stooped to the average life period of man.

Epact chronology is adjusted to this 33 years' vital cycle. All soli-lunar epact is the 33rd of the period in which it occurs. "Every 33 years a new generation of human beings is brought into existence, and with it a new year of epact." The thirty-threefold ratio links vital with historic times. It is the ratio which prevails in the proportion which exists between life periods in the individual man and those seen in the average duration of the dynasty, nation, or dispensation. Thus, in the Jewish dispensation, the 25 years interval from the call of Abraham to the birth of Isaac is the 9 months gestation period in the development of the individual increased thirty-threefold. The 400 years which followed, measuring the childhood of the Jewish nation, is the twelve years' period of childhood in the individual increased thirty-threefold. The 1,000 years, which measured the growth of the nation to maturity, is the 30

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years' growth period in individual life increased thirty-threefold. The 2,300 years of the times of the Gentiles, measuring the long-continued treading down of the sanctuary, is the 70 years' period in the life of the individual increased thirty-threefold, while the prophetic period of "7 times," with its added 75 years (Dan. xii.), is the 77 years' life period increased thirty-threefold. Epact chronology keeps pace with the thirty-threefold vital ratio century after century. Thus in 25 years the soli-lunar epact is 9 months; in 400 years it is 12 years; in 1,000 years it is 30 years; in 2,300 years it is 70 years, etc. "Whatever be the individual life period enlarged thirty-threefold in the chronology of history, the *epact* of the historic period equals the individual life period thus enlarged. The thirty-threefold ratio reigns throughout. The development of the plant, the man, and the nation are regulated by it, and the conjoint movements of sun and moon adjusted to its measures."

This thirty-threefold epact ratio is the ratio of one revolution of the moon around the earth to 1,000 revolutions of the earth on its axis; or, in other words, the ratio of one month to 1,000 days. The modification of this ratio to one synodic month in 991–2 solar days is adjusted to Messianic and prophetic times. The resulting additional fraction of epact which grows to a new 7 months of epact in the prophetic period of 2,300 years, amounts to a new 3 days of epact in 33·585 years, or the Messianic cycle.

The prophetic period of 2,300 years occupies a central position in relation to solar and lunar epact. It is the primary period arising from the intermultiplication of the 33 and 70 years epact cycles. The soli-lunar epact in 2,300 years is 70 lunar years and 7 months, while the solar epact in 2,300 years is 33 solar years. From this it follows that 2,300 years is the *pierre de l'angle* of soli-lunar and prophetic periods viewed as cycles of epact.

This prophetic period (2,300 years) is adapted in a very

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remarkable way to calendar uses. "A very simple and correct calendar of the course of days, months, and years may be founded on the 2,300 years cycle by reckoning the non-intercalary months as alternately 29 and 30 days, reckoning the intercalary months as alternately 30 and 31 days, and adding 23 days for the 23 centuries" (p. 344).

The prophetic period of "7 times," or 2,520 years, has a remarkable arithmetical and astronomical character. It is the least common multiple of the first ten numbers. On the other hand, the 75 years added in prophecy to 7 times, exactly equals the epact of the period. Thus, to the long period of 2,520 years, Scripture prophecy adds the brief terminal period of 75 years, and astronomy does the same. "If 2,520 lunar years and the same number of solar years begin together, the former will run out 75 years before the latter." "Was it by chance that Daniel lit on these two periods so widely dissimilar, which yet bear to each other this remarkable astronomic relation?" (p. 347).

The application of the thirty-threefold vito-historic ratio to the period of the four prophetic empires makes it evident that the principal divisions of the life period of the "Image" correspond with those in the life period of the individual. The childhood of the "Image," including the Babylonian and Persian periods, and the Syro-Grecian as far as the era of the Seleucidæ, is a 12 years life period enlarged thirty-threefold. The manhood of the "Image," extending to the subjugation of the Jews by the Romans in the time of Vespasian, is the 25 years life period enlarged thirty-threefold. The middle-age of the "Image," extending to the year A.D. 1268, when the Papal dominion attained its utmost height, is the 60 years life period in the individual enlarged thirty-three fold. The old age of the "Image" reaches from that point to the termination of the "7 times" with its added 75 years. The "Image" of Gentile sovereignty is now in its 78th year, verging on the "fourscore years," to which strength

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of constitution may extend the "threescore years and ten" of its life period.

Adjustment of Planetary Periods to Redemption Chronology.

The resemblance between the planets of the solar system is "a true *family* likeness; they are bound up in one chain, interwoven in one web of mutual relation and harmonious agreement."

The revolutions of the planets, like those of the sun and moon, are adjusted to the course of Redemption chronology. Thus, the first cycle which Mercury makes with the solar year is 7 years, or the week of years of the law and the prophets; a cycle whose error adjusts the movement of the planet to the 33 years Messianic cycle, and with such exactness as to make this period a cycle of the occurrence of transits. The prophetic period, 400 years, is 1,260 synodic periods of Mercury, and "7 times" or 2,520 years constitute a cycle of Mercury and the Earth from which the synodic, sidereal, and equinoctial periods of the planet can be deduced.

The revolutions of Venus, "the bright and morning star," harmonize in their primary eight years cycle with soli-lunar chronology and palingenetic times. The 33½ years Messianic cycle agrees with 21 revolutions of Venus, while seven such periods, or 235 years, form a cycle of Venus and the Earth, marked by the recurrence of transits. The 40 years prophetic period is a cycle of Venus (25 synodic periods). The adjustment of the movements of Venus to Messianic chronology involves two remarkable facts: (1) the intervals extending from the Nabonassar and Ezra starting-points to the year of the crucifixion are analogous periods as measured by the revolutions of Venus and the Earth; (2) the longer period is 1,260 equinoctical revolutions of the planet. From which it follows that the intervals from the Nabonassar starting-point of the Babylonian empire to the death of Christ, and the end

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of the Western Roman empire, are *analogous periods* as measured by lunar years and revolutions of Venus. While 1,260 equinoctial periods of Venus extend from the Nabonassar era to the crucifixion of Christ, A.D. 29, 1,260 synodic periods reach from the same starting-point to A.D. 1268, the year of the culmination of the power of the Papal Antichrist.

The ratio of the period of the Earth to that of the planet Mars is as 1,260 lunar years to 2,300 solar (two principal prophetic periods), while 2,520 lunar years form a cycle of the Moon, the Earth, and Mars, from which the period of the latter planet may be derived.

The prophetic period, 2,300 years, is a cycle of the revolutions of the Earth and Jupiter, while "7 times" lunar, or 2,520 years, is a cycle of the Earth and Saturn. In 2,520 solar years Jupiter loses one prophetic month, while in 2,520 lunar years Saturn gains one prophetic month (30 years). The average period of the revolutions of the planets is the 33 years average life period, the period (in complete years) of Messiah's earthly life-time.

The derivation of more than 101,000 solar and lunar dates, contained in the second volume of the present work, from the prophetic periods in the book of Daniel, affords an absolute demonstration of their cyclical or astronomic character, and of the correctness of the year day theory. "The prophetic periods revealed in the book of Daniel are, *taken as days*, astronomically nothing; *taken as years* they are astronomical cycles of such range and accuracy as to form a basis for the calculation of extensive tables of solar and lunar chronology."

Of all the adjustments connecting the Revealed with the Natural the moral adjustment is the most important. It involves a twofold provision corresponding with a twofold derangement: "a provision for vindicating the Divine government dishonoured by the rebellion of the creature, and this in accordance with the character of God," and "a provision for rectifying the heart and conscience of man." The

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order followed in securing these ends includes the authoritative republication of the moral law; the historic demonstration of its inability to produce the righteousness it commands; the foreshadowing and predicting of the mediatorial method by which God designed to accomplish the desired restoration; the perfect fulfilment of the moral law, and the satisfaction of its righteous claims by the Son of God in human nature; and the restoration of the supremacy of the law of God in the hearts and lives of His redeemed and renovated people, who "walk not after the flesh, but after the Spirit." In thus restoring and establishing the supremacy of the moral law the Revealed system is in strict *continuity* with the Natural, and rests on the immovable rock of man's moral nature, and the indisputable facts of his history and state. The proof of the transforming power of the Gospel is not only seen in the experience of the individual Christian, but in the history of Christianity. The religion of Christ has operated during the last nineteen centuries like the great silent forces of Nature; it has exercised a world-wide influence as a moral and spiritual power, working from within upon society, changing and transforming its beliefs, customs, organizations, and laws. It has educated the child, liberated the slave and the serf, elevated woman, purified and ennobled man. It has transformed marriage, mitigated the horrors of war, created institutions of mercy, and promulgated the principles of universal brotherhood and peace. But the work of Redemption has wider relations than those of a merely terrestrial character. Moral defection and ruin are not confined to earth. Angels have sinned as well as men, and have been the tempters and leaders of men in their rebellion against God. The kingdom of evil is a complex thing, and is centred in superhuman powers. The Son of God was manifested that He might destroy the works of the devil; He came to cast out the deceiver of mankind, and to deliver the world from his dominion. And Christ's redeem-

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ing work not only accomplishes this end, but has an illuminating and establishing effect upon the unfallen universe. Hosts of holy angels have been enabled by its means to behold treasures of Divine wisdom and grace never before revealed, and in their active co-operation with the Son of God, both in the ministration of mercy and the infliction of judgment, have been confirmed in righteousness, and raised to higher degrees of spiritual perfection.

Turning our thoughts from angelic beings to celestial abodes, we note that the spectacle of the starry heavens confirms the testimony of Scripture as to the existence of a sphere of life above our own. For God to have created worlds without intending that they should be inhabited would have been, according to Isaiah xlv. 18, to have formed them in vain.[1] The stars are suns, and, like the sun, are probably centres of planetary systems. Suns and planets seem to be suited to angels and men, or to spiritual and physical beings. The number of the stars is enormous. The Milky Way, which streams like a mysterious river of light across the midnight heavens, consists of millions of stars too remote to be seen as separate objects by the naked eye. Traversing both the Northern and the Southern hemisphere, it constitutes the equatorial zone of the sidereal sphere. The "entire contents, stellar and nebular, of the sphere belong to one mighty aggregation, and stand in ordered mutual relation within the limits of one all-embracing scheme." While the starry heavens declare the power and glory of God, His humbler works around us reveal His condescending providential care. God is in the lowly plant as well as in the mighty planet, in the diatom of the dust as well as in Arcturus and the Pleiades. Omnipotence works not only above us, but beneath; not only without, but within; not only in the gigantic, but in the minute; not only in the distant, but in the near.

[1] "He created it not in vain, He formed it to be inhabited."

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And lastly, while the telescope reveals to us the wonders of the physical heavens above us, and the microscope the marvels of the earth beneath our feet, the Christian consciousness enables us to perceive the still more glorious realities of the spiritual Universe. Man has spiritual faculties. He is a plant which, rooted in the soil, seeks the sun. Man belongs to two contrasted spheres; on the one hand he has physical needs, powers, and possessions; and on the other spiritual wants, senses, and supplies. Hence religion is not an invention or discovery, but is natural to man, as a being made and suited for God. The Christian religion is the highest religion in the world, but it is more than a natural religion. The Christian is a naturally religious being supernaturally enlightened. He walks in a light which never shone on sea or shore. His whole life moves round a supernatural unseen centre. God teaches him by His Spirit things which the natural man cannot comprehend or receive. The spiritual experiences of such men as Augustine, Luther, Pascal, Brainerd, Edwards, Simeon, and Weitbrecht in the past, and those of multitudes of devoted followers of Christ in the present, plainly evince the existence and declare the character of the Christian consciousness, and as compared with the experiences of the Apostles and early Christians prove its identity and indestructibility as a distinct faculty or power operating from age to age.

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CONCLUSION.

I. The Harmonization of Religion and Science.

The reconciliation of Science and Religion may be considered to be of secondary importance, owing to the uncertain and fluctuating character of the one, and the imperfect comprehension of the other. Any attempt at a complete reconciliation of Religion and Science must in the nature of things be premature. All that can reasonably be sought or expected is a growing harmonization of the one with the other, as Nature and Scripture become better understood.

It is an undeniable fact that the scientific and religious conceptions of the world are at variance in the present day. Two opposite conceptions "struggle for the mastery, and the struggle seems so deadly as to demand the death of the one for the life of the other." [1]

In his "History of the Conflict between Religion and Science" (18th edition), Professor Draper advances reasons for the view that "we have come to the brink of a great intellectual change," which threatens to "give rise to serious political results." There is taking place around us "a great and rapidly increasing departure from the public religious faith." "Society is anxiously expecting light to see in what direction it is drifting. It plainly discerns that the track along which the voyage of civilization has thus far been made has been left; and that a new departure on an unknown sea has been taken." Under the circumstances, he maintains that "it becomes the duty of those whose studies have made them familiar" with Science and Religion "to

[1] "Studies in the Philosophy of Religion and History," Fairbairn, p. 61.

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present modestly, but firmly, their views," for "the guidance of public opinion."

In dealing with the conflict between Religion and Science, it is important to distinguish between true and false Religion, and also between true and false Science. True Religion and true Science are not opposed. True Science may be opposed to false Religion, or false Science to true Religion; but true Science and true Religion must harmonize as truth with truth.

It is a suggestive and interesting fact that the founders of modern Science were religious men, and believers in the Christian revelation; and that their faith, so far from having proved a hindrance, was a guide and help to them in the study of Nature; that it sustained them in their long and arduous researches, and shed a moral lustre around the successes with which those researches were crowned.

The great revival of Religion known as the Reformation of the Sixteenth Century and the birth of modern Science coincided in point of time. Copernicus and Luther were contemporaries. It is noteworthy that the Religious Reformation and the new-born Science were opposed by the same power—corrupt and superstitious ecclesiastical authority. In neither case was true Religion chargeable with unjustifiable hostility. Superstition, not faith, was the foe.

Copernicus, who may be regarded as the father of modern Science, was not only a profound student of Nature, but a sincere believer in Revelation. "I ask not," he says in his epitaph, "for the pardon of Paul, nor intreat for the favour of Peter, but earnestly implore the same which Thou gavest to the dying thief upon the cross." Kepler was no less remarkable for his religious faith. His firm belief in the perfection of the works of God supported him in his long search for the laws of planetary motion; and when he found those laws he devoted the discovery to the glory of their Divine Author. "What I firmly believed," he says, "at length

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I have brought to light, and have recognised its truth beyond my most sanguine expectations. . . . It is now eighteen months since I got the first glimpse of light; three months since the dawn; very few days since the unveiled sun, most admirable to gaze on, burst out upon me. Nothing holds me. I will indulge in my sacred fury; I will triumph over mankind by the honest confession that I have stolen the vases of the Egyptians to build up a tabernacle for my God far away from the confines of Egypt. If you forgive me, I rejoice; if you are angry, I can bear it. The die is cast, the book is written; to be read either now or by posterity —I care not which. It may well wait a century for a reader, as God has waited six thousand years for an interpreter of His works."[1]

The great Sir Isaac Newton, whose discoveries of the laws of Nature cast even those of Copernicus and Kepler into the shade, was a humble-minded Christian man, and a close student of the prophetic Scriptures. In describing the ascent from phenomena to general laws and causes, which should characterize philosophical investigation, he thus expresses himself: "The main business of natural philosophy is to argue from phenomena without feigning hypotheses, and to deduce causes from effects, till we come to the First Cause, which is certainly not mechanical." At the close of his monumental work, "The Principia," he says: "This most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being. . . . This Being governs all things—not as the soul of the world, but as Lord over all, . . . a Being eternal, infinite, absolutely perfect. . . . His duration reaches from eternity to eternity, His presence from infinity to infinity. . . . We have ideas of His attributes, but what the real substance of any

[1] "Harmonices Mundi," p. 178.

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thing is we know not. . . . We know Him only by His most wise and excellent contrivances of things, and final causes. We admire Him for His perfections; but we reverence and adore Him on account of His dominion; for we adore Him as His servants."

In Newton's epitaph is the following memorable description of his character and work: "An assiduous, sagacious, and faithful interpreter of Nature, Antiquity, and the Holy Scriptures, he asserted in his philosophy the Majesty of God, and exhibited in his conduct the simplicity of the Gospel." [1]

The cases of Copernicus, Kepler, and Newton suffice to prove that Religion and Science are not mutually exclusive. It would be easy to add many celebrated modern names—such as those of Faraday, Brewster, Whewell, Agassiz, Adams, Cayley, Romanes, Sir George Stokes, and Lord Kelvin, in illustration of the possibility of the combination of scientific knowledge with religious belief.

The manifest opposition between Religion and Science in the present day is only due in part to the discrepancy between the theory of the world advanced by Science and its history made known by Revelation. Its real root is far deeper, and seems to consist, as affirmed by Romanes, in "the frame of mind" engendered by purely scientific investigations as contrasted with that which characterizes those in whom the religious consciousness has been awakened and developed. The claim which is made in certain quarters in the name of Science for the dominion of pure reason, or the speculative sense—operating with imperfect light, in the sphere of physical phenomena, over the convictions of the moral sense and the intuitions of the spiritual nature of man—is not only unreasonable, but immoral and arrogant

[1] "Naturæ, Antiquitatis, S. Scripturæ, sedulus, sagax, fidus Interpres, Dei Opt. Max. Majestatem philosophiâ asseruit, Evangelii simplicitatem moribus expressit."

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in character. The search for truth, to be successful, must be conducted with the whole of man's powers, and not merely with a part, and that the lower part of his faculties as a complex, intellectual, moral, and spiritual being.

It will help to remove the opposition existing between Religion and Science to recognise—

1. *The distinctness of the spheres to which they belong.*

Properly speaking, Science and Religion cannot conflict, since they occupy wholly separate regions—the region of the senses, and the region of that which lies beyond the senses. The one deals with the physical, the other with the moral and spiritual. Science, as treating of the phenomena and laws of the physical world, can give no information as to the spiritual world. The teachings of religion treat of subjects beyond its ken. Science can neither affirm their truth nor deny it.

2. *The distinction between Religion and Revelation.*

Religion, as such, is wholly outside the sphere of Science; but Revelation—in treating not only of Religion, but also of human history, and of the constitution and course of Nature—trenches on its domain. Thus the way is opened for agreement or conflict between the one and the other.

3. *The imperfection of Scientific Knowledge.*

Like Revelation, Science only knows "in part," and prophesies, or teaches, "in part." "When that which is perfect is come, that which is in part shall be done away." Much of modern Science is merely theoretical or speculative. Science is not a fixed, but a fluctuating quantity, and limited in its range by the imperfections of the understanding, and the paucity or doubtfulness of the data or evidences on which its conclusions are based.

4. *The obscurity of the points on which Science and Revelation seem to differ.*

These points belong chiefly to the question of origins, in which the information afforded by both the one and the other

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is manifestly of an imperfect kind. Superficial writers like Mr. S. Laing, the author of "Human Origins," and other sceptical works, unduly magnify the certainty of scientific knowledge in relation to the question of origins, and distort the testimony of Revelation by confounding it with popular, or even exploded theology. Mr. Laing builds on Egyptian chronology, but the uncertainty attaching to Egyptian chronology is acknowledged by capable historians to be "an uncertainty, not of centuries, but of millennia." [1] "The Egyptians themselves, it can never be too often repeated, had no chronology." [2] Archæological and geological evidence for the high antiquity of the human race is of a doubtful character, as shown by Sir William Dawson and others. But even if the high antiquity of certain supposed human remains could be proved, the question would remain unsettled whether such remains belong to the primitive period of the present Adamic race, or are remains of some pre-Adamic race. The latter view is maintained with ability by Dr. McCausland in his work entitled "Adam and the Adamite," and the question may well be left an open one in the absence of more definite and indisputable information. The Darwinian notion that man is merely an improved animal is a revolting speculation, rejected by some leading evolutionists, such as Wallace, the co-discoverer with Darwin of Natural Selection. The obscurity of the question of human origins should be freely admitted on all hands, and hasty conclusions for or against particular views on the subject avoided.

5. *The importance of avoiding misconceptions and misstatements of the points at issue.*

In his "History of the Conflict between Religion and Science," Professor Draper states that, "we are now in the

[1] "History of Ancient Egypt," Professor Rawlinson, II. 11.

[2] *Ibid.*, p. 10; and Lenormant, "Histoire Ancienne de l'Orient," vol. I. p. 322.

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midst of a controversy respecting the mode of government of the world, whether it be by incessant Divine intervention, or by the operation of primordial and unchangeable law." No intelligent believer in Revelation maintains that the government of the world is carried on "by incessant Divine intervention," as opposed to government by natural law. The occurrence of the miraculous, which is altogether exceptional, "presupposes an order of Nature to which it is related, and without which it could convey no special meaning to the mind of the observer."[1] It would be far more correct to say that the controversy in question is one between Naturalism and Supernaturalism. If the universe be a creation, it must have had a beginning, and a supernatural beginning. There must have been a break somewhere in the chain of causation if natural causation was not eternal; Divine intervention took place at some point, and how often Divine interventions have occurred is only a matter of detail. Let those who reject all miracles be consistent, and reject the miracle of Creation. But to do this is to believe in a greater miracle than the miracles rejected.

There is an idolatry of law in the present day which reminds the thoughtful observer of the attitude of the Jewish people with reference to the old Sinaitic covenant. The Jews "were fascinated, as men are apt to be fascinated, by its sweeping generality, its clear, stern simplicity, its infinite exaltation above human littleness and changeableness, through which it looks out over the turmoil and perplexity of life with the solemn impassiveness of a great Egyptian Deity."[2] The Sphinx has still its worshippers. To modern materialists the universe is a machine, man an automaton, and morality and religion are replaced by physical necessity and fatalism. Such philosophy is suicidal. Materialism is at war not only with Revelation, but with reason, with the

[1] "Handbook of Christian Evidences," Alex. Stuart, D.D., p. 29.
[2] "Bampton Lectures," Barry, 1892, p. 2.

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human consciousness, and with the certainties of the moral world. The man who accepts Materialism commits an act of *felo de se.* Morality and Religion can only be annihilated by the annihilation of man himself. Let law have its place by all means, but let law be subjected to law, lower laws to higher, material interests to moral ends. Let there be no stifling of the voice of conscience. Let free will and human responsibility stand in the moral world as firmly as gravitation in the physical, and no speculation be admitted which subverts the noblest elements and instincts in the constitution of man.

6. *The progress of efforts to harmonize Religion and Science.*

It is profoundly interesting to consider and connect the various attempts which have been made from time to time, and especially of late, to harmonize Religion and Science. The persistency of such attempts indicates the action of a law which must ultimately prevail. The effort of intelligence is not only to extend, but to unify knowledge. The relations of the Natural and Revealed lie within the sphere of the operations of this tendency, and must necessarily be traced out and apprehended with ever-growing clearness. As exhibiting this tendency we select and associate the following

Five present attempts to harmonize Religion and Science.

1. *That of Mr. Herbert Spencer.*

This distinguished, though sceptical, thinker attempts to harmonize Religion and Science "by emphasizing that ultimate element of truth which on each side underlies manifold differences." He states that "an unbiassed consideration of its general aspects forces us to conclude that Religion everywhere present, as a weft running through the warp of

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human history, expresses some eternal fact; while it is almost a truism to say of Science that it is an organized mass of facts, ever growing, and ever being more completely purified from errors." He argues that "if both have bases in the reality of things, then between them there must be a fundamental harmony"; and that "the thing we have to seek out is that ultimate truth which both will avow with absolute sincerity." He considers "that only in some highly abstract proposition can Religion and Science find a common ground," and observes that Science compels "the consciousness of an Inscrutable Power manifest to us through all phenomena." He regards this consciousness as "indestructible." "We are obliged to regard every phenomenon as a manifestation of some Power by which we are acted upon; though Omnipresence is unthinkable, yet as experience discloses no bound to the diffusion of phenomena, we are unable to think of limits to the presence of this Power; while the criticisms of Science teach us that this Power is incomprehensible, and this consciousness of an Incomprehensible Power, called Omnipresent, from inability to assign its limits, is just that consciousness on which religion dwells." He finds "an entire agreement on this deepest and widest of truths," and says, "In Religion let us recognise the high merit that from the beginning it has dimly discerned the ultimate verity, and has never ceased to insist upon it."[1]

In the light of these admissions it may not be too much to say that Science builds the base of the altar which Religion completes.

2. *That of Dr. George Romanes.*

This eminent naturalist undertakes in his "Thoughts on Religion" to carry the reconciliation of Religion and Science to a point beyond that reached by Spencer. Alluding to Spencer's attempt, he says, "It seems to me, after many

[1] "First Principles," chapters I.—V.

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years of thought upon the subject, that the 'reconciliation' admits of being carried much further than it has been by him. My aim is to carry the reconciliation into much more detail, and yet without quitting the grounds of pure reason. I intend to take Science and Religion in their present highly developed states as such and show that on a systematic examination of the latter by the methods of the former the 'conflict' between the two may be not merely 'reconciled,' as regards the highest generalities of each, but entirely abolished in all matters of detail which can be regarded as of any great importance." "It is only in advanced years that I have clearly perceived wherein the first principles of such a research must consist. . . . The principles in question are the nature of causation and the nature of faith."

(1.) The nature of causation.

We know that everything that happens has a cause, and that causes are invariably proportioned to effects, but the nature of causation is a mystery to us. It is evident that our idea of causality is chiefly derived from the action of our own volition. This suggests the thought that natural causation may have an analogous origin in "a will objective to us." "(*a*) If there be a personal God, no reason can be assigned why He should not be immanent in Nature, or why all causation should not be the immediate expression of His will. (*b*) Every available reason points to the inference that He is probably so. (*c*) If He is so, and if His will is self-consistent, all natural causation must needs appear to us 'mechanical.' Therefore (*d*) that is no argument against the Divine origin of a thing, event, etc., to prove it is due to natural causation." We have no ground for the assumption that the First Cause "can in no way be concerned with 'second causes,' further than by having started them in the first instance as a great machinery of 'natural causation' working under 'general laws.'" A personal God may be "immediately concerned with natural causation," and

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a miracle, or so-called supernatural action, be like natural causation, simply an effect of His will.

(2.) The nature of faith.

Faith is not the act of the speculative reason, but of the heart. "Faith in its religious sense is distinguished not only from opinion (or belief founded on reason alone) in that it contains a spiritual element; it is further distinguished from belief founded on the affections by needing an active co-operation of the will." The "most important part of Nature whereby to investigate the theory of Theism" is human nature. Revealed religion appeals "to the spiritual rather than to the rational side of our nature." "Christian belief is much more due to doing than to thinking, as prognosticated in the New Testament." "If any man will *do* His will, he shall *know* of the doctrine, whether it be of God" (Jno. vii. 17). "Do the doctrine, and if Christianity be true, the verification will come, not indeed mediately, through any course of speculative reason, but immediately, by spiritual intuition." The "pure in heart" "see God."

3. *That of Mr. Benjamin Kidd.*

Nature, according to this able and philosophic writer, affords no rational sanction for social progress. The evolutionary law of Nature is one of selfish warfare. "The interests of the social organism and those of the individuals composing it at any time are actually antagonistic" and "irreconcilable." "All systems of moral philosophy which have sought to find in the nature of things a rational sanction for human conduct in society must sweep round and round in futile circles." The social evolution in progress in the world really rests on ultra-rational or religious grounds. Religious beliefs have a definite and indispensable function in human evolution, that of providing "a super-rational sanction for that large class of conduct in the individual necessary to the development which is proceeding, but for which there can be in the nature of things no rational

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sanction." This idea Mr. Kidd works out in a volume of 350 pages. He shows very ably that not only religion, but the Christian religion, is the chief factor in social evolution.

Man is "undergoing a social development in which his individual interests are not only subservient to the interests of the general progress of the race, but in which they are being increasingly subordinated to the welfare of a social organism possessing widely different interests and an indefinitely longer life." "The evolutionist perceives" that the religious movement "dwarfs and overshadows everything else." For centuries "the history of our civilization has been devoted to the growth and development of a stupendous system of other-worldliness." The movement has not been "essentially an intellectual movement," but the reverse. It has been and is essentially super-rational. It rests on "altruistic ideals," and "supernatural conceptions" which mere reason fails to justify. Its effects have been not merely spiritual and moral, but social and political. It has led to "the gradual breaking down of that military organization of society which had previously prevailed, and the emancipation and enfranchisement of the great body of the people hitherto universally excluded under that constitution of society from all participation on equal terms in the rivalry of existence, and it tends to culminate in a condition of society in which there shall be no privileged classes, and in which all the excluded people shall be at last brought into the rivalry of life on a footing of equality of opportunity." The chief "motive force" of this vast social and political movement "we must apparently find in the immense fund of altruistic feeling with which our Western societies have become equipped; this being, with the extraordinary effective sanctions behind it, the characteristic and determinative product of the religious system upon which our civilization is founded." "In the eyes of the evolutionist it is by contributing the factor which has rendered this unique process

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of social development possible that the Christian religion has tended to raise the peoples affected by it to the commanding place they have come to occupy in the world." The extinction of slavery, the elevation of woman, the narrowing of the power of the privileged classes, and the widening of the privileges of "the outside classes" are features of a general progress resting on a moral and religious foundation. "We stand continuously in the actual presence of that force which is reconstituting the world"; a force which has its roots in "humanitarian feelings" chiefly Christian in their character and origin.

4. *That of Professor Henry Drummond.*

This able and popular writer maintains that there is an analogy of phenomena in the natural and spiritual world involving identity of law. The term "law" is here employed in the sense of *order.* The order in the natural and spiritual sphere is to a very large extent demonstrably the same. A series of natural laws run up into the spiritual world. Professor Drummond has been led to this view in the prosecution of his double work as a professor of Natural Science and a preacher of the Gospel. He tells us that at an early period in his experience his spiritual world was "a chaos of facts." While law prevailed in Nature, Religion stood apart as "the great exception." By degrees his biological studies broke down the middle wall of separation between Religion and Science. "I ran up natural law as far as it would go, and the appropriate doctrine seldom even loomed in sight till I had reached the top. Then it burst into view in a single moment. I can scarcely now say whether in those moments I was more overcome with thankfulness that Nature was so like Revelation, or more filled with wonder that Revelation was so like Nature." The position Professor Drummond takes is "not that the spiritual laws are analogous to the natural laws, but that they are the same laws."

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He does not deny that there may be laws in the spiritual world which do not exist in the natural, but as far as the phenomena in the two spheres are analogous they indicate identity of law.

Professor Drummond's studies in Natural Science have led him to trace a series of biological parallels in the phenomena of the natural and spiritual world. His chapters on Biogenesis, Degeneration, Growth, Death, Mortification, Eternal Life, Environment, Conformity to Type, Parasitism, and Classification, set forth these parallels in a very clear and striking manner. He insists throughout that these parallel phenomena involve identity of law, and thus the intimate connection of the natural and spiritual worlds as two spheres of one great system whose authorship is Divine.

5. *That of the present work.*

The relation between the Natural and Revealed traced in this work is Christo-centric in character. The view sought to be established is that the Natural is centred in the Revealed, and the Revealed in Christ, and thus that all things are centred in Him.

While Professor Drummond's work on Natural Law in the Spiritual World deals under the name of law, or order, with the relation of *analogy* (analogy of phenomena) connecting the two spheres, the present work investigates their relation under the several heads of Causation, Analogy, and Adjustment. In Parts I. and II. it is shown that both Nature and Revelation are traceable to a common Cause, supernatural in character; while in Part III. their mutual connection by Analogy and Adjustment is exhibited. While Spencer connects Religion and Science by their common recognition of the Infinite and Eternal First Cause of all things, and Romanes extends their harmonization still further by an examination of the nature of causation and the nature of faith, and Kidd demonstrates the existence of a profound causal connection

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between Revealed Religion and Social Evolution, and Drummond exhibits the analogy of the phenomena in the natural and spiritual worlds as involving identity of law, or order, the present work dwells on the triple connection of Causation, Analogy, and Adjustment binding the Natural and Revealed in unity. Nature and Revelation have demonstrably a common cause, and are closely analogous and mutually adjusted.

Such works as Draper's "History of the Conflict between Religion and Science" are deeply to be distrusted, as dwelling on superficial discrepancies of a transitory kind, and ignoring profound relations destined to endure. "Let not Science and Religion," says President McCosh, "be reckoned as opposing citadels, frowning defiance upon each other, and their troops brandishing their armour in hostile attitude. They have too many common foes, if they would but think of it, in ignorance and prejudice, in passion and vice, under all their forms, to admit of their lawfully wasting their strength in a useless warfare with each other. Science has a foundation, and so has Religion; let them unite their foundations and the basis will be broader, and they will be two compartments of one great fabric reared to the glory of God. Let the one be the outer and the other the inner court. In the one, let all look, and admire, and adore; and in the other, let those who have faith kneel, and pray, and praise. Let the one be the sanctuary where human learning may present its richest incense as an offering to God; and the other, the holiest of all, separated from it by a veil now rent in twain, and in which, on a blood-sprinkled mercy-seat, we pour out the love of a reconciled heart, and hear the oracles of the living God!"

We will conclude this section on the relation of Religion and Science by citing the solemn and touching prayer of that great philosopher Francis Bacon, based on his conviction that "belief is more worthy than knowledge, for in knowledge (such as we have at present) the human mind

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is acted upon by sense, which results from material things; but in faith the spirit is affected by spirit, which is the more worthy agent."[1]

"To God the Father, God the Word, God the Spirit, we pour forth most humble and hearty supplications, that He, remembering the calamities of mankind, and the pilgrimage of this our life, in which we wear out our days few and evil, would please to open to us new refreshments out of the fountains of His goodness for the alleviating of our miseries. This also we humbly and earnestly beg, that human things may not prejudice such as are Divine; neither that, from the unlocking of the gates of sense, and the kindling of a greater natural light, anything of incredulity, or intellectual night, may arise in our minds towards Divine mysteries. But rather, that by our mind thoroughly cleansed and purged from fancy and vanities, and yet subject and perfectly given up to the Divine oracles, there may be given unto faith the things that are faith's."

[1] "Advancement of Learning." Book IX.

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II. The Harmonization of Revelation and Nature.

Whatever may be the relations of Science and Faith, the fact remains that "Nature and Christianity are in unison." We close the present volume by summarizing the evidence of their harmony, and applying it to practical uses.

I. Confirmation of the Christo-centric Principle.

Τὸ μαρτύριον του Χριστοῦ ἐβεβαιώθη.[1]

The position which we took at the commencement of this work, and have kept to all along, is that the testimony of Nature *confirms* that of Scripture, that all things are centred in Christ. We have carefully avoided the attempt to build faith on reason. We have made no attempt to *demonstrate* by mere reason, apart from the higher faculties of the human mind, the existence of God, or the inspiration of Scripture, the divinity of Christ, or any spiritual truth. So far from this, we have denied to the mere rational or intellectual faculty the office of apprehending the highest truths, and have asserted that this office belongs to the moral and spiritual powers,[2] devoting a separate section to the consideration of the Christian consciousness as the instrument of spiritual perception.

In our study of the *confirmation* of the testimony of Scripture concerning the relation of the Natural and Revealed, we have been guided throughout by the Christo-centric principle. As Copernicus applied the Helio-centric principle to the problem of the revolution of the planets, so we have applied the Christo-centric principle to the problem of the constitution and course of the System of the Universe, Natural and Revealed.

[1] "The testimony of Christ was confirmed" (1 Cor. i. 6).

[2] See pp. 25, 27, 50, 56, etc.

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We have based our study of the relation of the Natural and Revealed on an analysis of possible relations. We are able to conceive of at least three relations between things: (1) that of cause and effect; (2) that of resemblance, or analogy; (3) that of whole and parts, involving association and mutual adjustment.

The Natural and Revealed are connected in each of these ways: (1) By causation. Both Nature and Revelation flow from the supernatural. Each has a supernatural cause, and they have the same cause. (2) By analogy. The Natural and Revealed are connected by numerous profound analogies. (3) By adjustment. The Natural and Revealed are mutually adjusted as the parts of a single whole. They constitute one organic system; one historic course.

Under each of these relations the connection of the Natural and Revealed is Christo-centric.

1. *The effect is centred in the cause.*

It is admitted even by those who reject Revelation that Nature points to "the one absolute certainty, the presence of an infinite and eternal energy, from which all things proceed."[1] This energy, or power, as Sir Isaac Newton has said, is "certainly not mechanical,"[2] for it is not the mere mover of the material mechanism of Nature, but the author and support of reason and morality, the governor of the moral world. It is a power revealed to and reflected by intelligence; a power recognised and mirrored by conscience; it is therefore an intelligent and moral power. The cause of intelligence must be intelligent, and "the cause of conscience must be moral." Being infinite and eternal, this intelligent and moral power is called God.

Now it is the oft-repeated testimony of Revelation that God has been "manifested in the flesh" in the person of

[1] Herbert Spencer, *Nineteenth Century*, March, 1844.
[2] "Optics. Quere," 28.

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Christ; that Christ is Immanuel, or "God with us"; and that "without Him nothing was made that was made." This testimony is confirmed by prophecy, miracle, and experience; or by the supernatural events and elements connected with the birth, life, character, ministry, death, and resurrection of Christ, with His prefigurative and prophetic annunciation beforehand, and with the profound and world-wide effects of His advent. It is further confirmed by the fact that our Lord accepted the titles and worship due to a Divine Being, and displayed those attributes of supernatural wisdom, supernatural power, and supernatural goodness which are seen in the works of God in Nature and Providence; and displayed those attributes in combination; and that in Him, just as in Nature and Providence, supernatural wisdom and power are subordinated to supernatural goodness, or holy love. On all these grounds Christ is to be regarded as a Divine Being, and the instrumental Cause of Creation; and as the effect is centred in its cause, Creation is centred in Christ.

2. *The type is centred in the antitype.*

The natural and spiritual systems do not stand on the same level. The spiritual is higher than the natural, antedates it in origin, and transcends it as its final cause. Hence in the analogies by which they are connected the types are on the natural side, and the antitypes, or archetypes, on the revealed. In this respect the Christian system has the same relation to types existing in Nature as it has to types in the Old Testament economy. Nature may be regarded as an older Bible witnessing throughout to Christ.

And as in Scripture so in Nature, there is a convergence of types to a central archetype. Thus the parental relation in Nature has its archetype in the relation of the Eternal Father and His only-begotten Son; the indwelling, or temple types, in Nature have their archetype in the Incarnation; the remedial types in Nature have their archetype in

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the work of the Redeemer; and the vicarious types in the action of the great Mediator. The "Second Man," as "the image of God," is the archetype of the first. "The subjugation of the world by man has its archetype in the subjugation of all things by the Son of Man. The various types of union in Nature lead up to the union of the Divine and human in and through the Mediator, and to His mystical union with the Church." [1] The types of growth and fruitfulness, and of the derivation, support and development of life, lead to the same common centre. Trace the lines of Nature's types, and they will be found, like the types in Revelation, to converge to one supreme spiritual centre. In its analogies Nature, like Scripture, is Christo-centric.

No type is more universal in Nature than that which may be called the solar type, exhibiting the centralization of supply and support, or of maintenance and rule. It is seen in various forms in the solar system, in the plant, in the animal, in man, and in human society. The great archetype of this universal type exists in the relation of the Divine Being to Creation. In Christ this relation is manifested. He is the Light, Life, and Lord of the new Creation. As such He was a Prophet on earth, is now a Priest in heaven, and will be a King at His return. And as the type is centred in the archetype, the solar order of Nature is centred in the solar order of the supernatural world; in other words, Creation is centred in Christ.

3. *The means are centred in their end.*

The Natural and Revealed belong to the same organic and historic whole. Historically the two systems are continuous, or form one course of events, in which the Revealed is the final cause or goal of the movement.

(1.) The geological adjustment is Christo-centric.

The preparation of the world was for the advent of man;

[1] p. 164.

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the progression of races terminates in man. The conflict, or rivalry, of existence which produces the destruction of lower and the survival of higher races leads to the supremacy of man. But man, "the natural man," is the type and precursor of "the Son of Man," "the Second Man," "the Lord from heaven." "That was not first which is spiritual, but that which is natural, and afterwards that which is spiritual." The geological course is centred in its end. The conflict of ages has its tragic centre in the Cross, and "the survival of the fittest" in the glorious resurrection goal of the kingdom of God. The story of the earth and man is one. It can only be read by combining the records of geology, history, and prophecy. In the book of Daniel and the Apocalypse the terminal portion of this story is unveiled under the figure of a conflict between wild-beast powers and "the Son of Man," and "saints of the Most High." The wild-beast powers overcome at first, and are then overcome, and swept away, to make room for the nobler race destined to endure. In all this the Natural order is adjusted to the Revealed, and is Christo-centric.

(2.) The historical adjustment is Christo-centric.

No relations are more evident in history than those connecting Jewish and Christian history with Christ, according to which He was the goal of the one, and the starting-point, or source, of the other. The more profoundly the movements of history are studied as a whole, the more clearly will it be seen that they are all similarly Christo-centric. "Human history has no other centre of convergence and divergence than the Cross on Calvary." "History has no other prophetic end than the Kingdom of Immanuel."

(3.) The astronomical adjustment is Christo-centric.

The Astronomical Tables in the second volume of this work demonstrate that Natural Chronology is adjusted to Revealed; that the prophetic periods are natural cycles, harmonizing solar and lunar movements, on which extensive

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calendar calculations may be based. Since the Revealed Chronology to which these natural revolutions are adjusted is Christo-centric, the natural revolutions must also be Christo-centric.

This position is confirmed by the harmony between vital and astronomic times, and the adjustment of both to the 33 years' Messianic cycle. "Epact chronology keeps pace with the 33-fold vital ratio century after century. In every period of 33 years the epact is one year. Every 33 years a new generation of human beings is brought into existence, and with it a new year of epact. For every generation there is a cycle of celestial revolutions, with its sum of solar and lunar influences."[1] The earthly lifetime of our Lord was measured by this period. In becoming man He was "made in the likeness of sinful flesh," stooping to the average life period of man, to atone by His death for the sins of the world. We have shown that the ratio of vital periodicity to historic is the 1 to 33 epact ratio, and that this ratio prevails in the proportion which exists between life periods in this individual man and those in the average duration of the dynasty, nation, or dispensation. The adjustment of vital, historic, and astronomic times to the 33-fold ratio is Christo-centric in character.

Among the prophetic periods none are of more importance than the "seventy weeks," and the "seven times." They are the periods which terminate in the Cross and in the Kingdom of Christ. In the first of these the closing 7 years is marked off as of special importance in relation to the ministry and death of Messiah, while in the second the closing 75 years is similarly marked off as connected with terminal events. Now in each case the closing period thus marked off is the *epact* of the whole. Astronomy agrees with prophecy in indicating 7 and 75 years as terminal periods in the "seventy weeks" and "seven times." And since these prophetic periods are set to

[1] p. 337.

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Messianic times (times connected with Christ's Cross and Kingdom), the astronomic revolutions adjusted to them are similarly set to Messianic times, or are Christo-centric. Not only are the revolutions of the sun and moon adjusted to redemption chronology, but also those of all the planets of the solar system. We have given evidence of this adjustment (pp. 354–381), and might have greatly extended the proof had the limits of the work permitted it. It is possible to construct tables of the movements of the planets on the basis of revealed redemption chronology, similar to the tables of solar and lunar movements in Vol. II. of this work. On all these grounds we feel warranted in asserting that natural chronology is adjusted to revealed, and that the adjustment is Christo-centric.

(4.) The moral adjustment is Christo-centric.

The moral adjustment is the chief feature in the co-ordination of the Natural and Revealed. A striking testimony to the importance of this adjustment is afforded by Chalmers' "Institutes of Theology," in which "the subject matter of Christianity" in the first volume is dealt with under the title, "The disease for which the gospel remedy is provided," while the whole of the second and concluding volume is devoted to the consideration of "the nature of the gospel remedy, and its extent."

We are very conscious that we have not dwelt on this profound adjustment of the Revealed to the Natural as fully as it deserves. The fact that it is commonly presented in its leading aspects in Christian teaching, and the necessity we were under of giving room to other less widely recognised links between the two departments—links of an historical, chronological, and astronomic character—sufficiently account for the brevity of our treatment of this important part of our theme.[1]

[1] Where can the reader find a clearer, briefer, more thorough and trustworthy exposition of the adjustment of God's salvation to man's need

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The marvellous moral adjustment of the religion of Christ to human need is not only seen in individual experience, but in the history of the world. It has exercised a regenerating and regulating effect on the life of nations. "Christianity,"

than in the Epistle to the Romans? We commend that epistle to his earnest attention. It will richly repay the closest study. As a help to such a study we may suggest that this epistle gives a complete *doctrinal*, *historical*, and *practical* exposition of salvation. Its great subject is σωτηρία, "salvation" (ch. i. 16). It unveils first the solemn truth as to man's responsibility, sin, and condemnation. It then shows (ch. iii.–viii.) how the sinner may be "made righteous," the moral slave "made free," the conquered "made more than conquerors." The believer is not only justified, and reconciled to God, but liberated from the dominion of sin, from the bondage of the law, and the spirit of servitude. The death of Christ has not only atoned for his sin, but cancelled his original relation to the law. The first husband being dead, he is free to be "married to another," even to Him who is raised from the dead, that he may bring forth fruit unto God. Instead of "the spirit of bondage" he enjoys "the spirit of adoption," by which he cries, "Abba, Father." All things work together for his good. The storm hastens his homeward journey. He justly glories in tribulation, knowing the practical value of its results. He not only conquers trouble, persecution, temptation, peril, the sword, death, the grave, but rises by these to greater heights of moral and spiritual attainment, and is thus "more than conqueror" over all evil through Him who loved us. Nothing can ever separate him from the love of Christ, which is no other than the infinite and eternal love of God manifested in His only-begotten Son.

The story of this salvation in its historic aspect (ch. ix.–xi.) includes the temporary rejection of the Jews because of their unbelief, the wondrous call of the Gentiles into the Kingdom of God, and the subsequent, now fast approaching, national restoration and conversion of the Jews. "If the casting away of them be the reconciling of the world, what shall the receiving of them be but life from the dead?"

In the practical portion of the epistle (ch. xii.–xvi.) the morality of the gospel is unfolded in its individual, social, ecclesiastical, and political aspects. The close connection between the love of God and the new life of obedience is put in the foreground. Believers in the gospel are besought "by the mercies of God" to yield themselves a living sacrifice to the good and holy will of God the Saviour. The ultimate triumph of the gospel is anticipated, and its progress sought with burning zeal and unquenchable desire.

What have all the other religions or the philosophies of the world to compare with this? Well may the Apostle Paul stand unabashed before the world, and say, "I am not ashamed of the Gospel of Christ, for it is the power of God unto salvation to every one that believeth."

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says Dr. Henry Smith, "is not only an historic revelation, and an internal experience, but also an organic, diffusive, plastic, and triumphant force in human history; and in this history, as in the revelation, and as in the experience, the centre around which all revolves is the person of Christ." [1]

Grouping together the foregoing facts we may say that the general conclusion to which we are conducted by our examination of the constitution and course of Nature is one *confirmatory* of the teaching of Scripture as to the connection of the Natural and Revealed. We have found that the Natural order of things is so connected by causation, analogy, and adjustment with the Revealed as to form with it a single system, Christo-centric in character. Creation, as far as it is open to our view, like Redemption, is centred in Christ. The testimony of Nature amply confirms the teaching of Scripture, that in Christ "all things consist," or hold together, as a system, or universe.

[1] "Faith and Philosophy," p. 21.

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II. Application of the Christo-centric Principle.

From the time of Copernicus to the present day the movements of the planets have been interpreted by the application of the helio-centric principle. Ptolemy's epicycles have been got rid of. Complex motions have been reduced to simplicity. The loops of the planets have been opened out into nearly circular paths without twist or turn. The standing still and going back of the planets has been recognised as only apparent, and not real. Viewed from the sun, the centre of the system, their movements are perceived to be simple and harmonious. All revolve in the same direction, with regulated speed and ceaseless progress.

The geo-centric, or apparent, and helio-centric, or true motions of the planets, are distinguished in modern tables of planetary motion. In the Nautical Almanac, for example, the right ascension of the planets and their helio-centric longitude are both given, and thus the apparent and real places can be compared. They are so related that the one can be inferred by calculation from the other.

Opening the volume for 1894, we observe that Venus advances in its apparent motion to January 24, and then goes back until March 7, and then advances again. In the tables for 1896 Jupiter goes back in its apparent place until March 25, and then advances again; while Saturn advances to February 27, goes back till July 16, and then again advances, having been nearly five months retrograde. On comparing with the above apparent motions the daily helio-centric longitude of these planets, we find in the latter uninterrupted progress and regularity. Mercury makes its revolution in three months, Venus in about seven months, Mars in nearly two years, Jupiter in twelve, Saturn in thirty, the

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helio-centric longitude steadily increasing in each instance day by day until the circuit is completed.

Applying the principle thus illustrated to the exposition of the system which includes the mental and moral as well as the physical world, we observe that religion, philosophy, and science are Ptolemaic or Copernican, according to the standpoint occupied.

In the moral world, as in the physical, it is needful to distinguish between the apparent and the real. The geocentric standpoint gives the one, the helio-centric standpoint the other. But the helio-centric standpoint is the Christocentric. Seen from this position, religion, philosophy, and science are harmonized. Their loops and backward turnings are resolved into progressive motion. The skies are no longer disfigured with complex epicycles. Ptolemy has ceased to rule the spheres; Egypt is queen no more. The astrolabe has vanished to make room for the telescope and the tables of the modern observatory. The religion, philosophy, and science of the apparent have given place to those of the real.

The Christo-centric position is that of the mind which contemplates all things from the standpoint of the Incarnation. *God has been manifested in the flesh.* The Word which was in the beginning, and was with God, and was God, and by whom all things have been created, has been revealed in human form as "God with us." Hence the knowledge of God, man, and Nature must centre in Him. Whether that knowledge be spiritual as in religion, abstract as in philosophy, or concrete as in science, its sphere must have one and the same great centre. Contemplated from any other standpoint, the testimony of these branches of knowledge is confused and contradictory. Seen from their true centre, their witness is harmonized.

The Christo-centric principle has a twofold application—negative and positive. It has a bearing on the false and the

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wrong, and also on the true and the right. It applies to error and sin on the one hand, and to truth and holiness on the other.

I. Application to Error.

1. *False religions.*

These may be arranged in three classes:—

(1) Those which are not even Theo-centric.

(2) Those which are nominally Theo-centric, but not Christo-centric.

(3) Those which are Christo-centric in profession, but not in reality.

The idolatrous religions of heathendom belong to the first of these divisions; Judaism and Mohammedanism to the second; Romanism and certain other corrupt forms of Christianity to the third. The idolater openly worships and serves "the creature more than the Creator"; the Jew and Mohammedan, while outwardly worshipping the God who made heaven and earth, reject the Incarnation, and deny the teachings of Christ. Romanism, though nominally Christian, has its centre in the antichristian Papacy.

It is of no small practical importance in these days to distinguish clearly the axis of the Romish system. The centre upon which that system rotates is Papal Supremacy conjoined with Papal Infallibility. It is a most solemn, significant truth, though one very little understood, that the Papal head of the Romish Church blasphemously takes the place of the Father, the Son, and the Holy Ghost. He takes the place of the Father, as God's vicegerent on earth, the "Holy Father," a name which, according to the teachings of Christ, belongs to our Father in heaven, and to Him alone (John xvii. 11; Matt. xxiii. 9). He takes the place of the Son as the vice-Christ, the High Priest (*Pontifex Maximus*), the Head of the Church on earth, the Husband of the Church (wearing a ring in token thereof), the Ruler of Princes,

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wearing the mitre and triple crown, and bearing the temporal and spiritual swords; the holder of the keys of the kingdom of heaven, having authority in three worlds, power to canonize saints in heaven, to pardon sins on earth, and to release from the pains of purgatory in the prison-house of hell. He further takes the place of the Holy Ghost as the Infallible Teacher of faith and morals. To be the infallible teacher of the Church is very definitely the position of the Holy Spirit, according to the promise of our Lord in John xvi., where we read, "It is expedient for you that I go away; for if I go not away, the Comforter" (or Paraclete) "will not come unto you; but if I depart, I will send Him unto you. When He, the Spirit of Truth, is come, He will guide you into all truth." With this promise agrees the apostolic declaration, "The anointing which ye received of Him abideth in you, and ye need not that any one teach you; but as His anointing teacheth you concerning all things, and is true, and is no lie, and even as it taught you, ye abide" (or abide ye) "in Him."[1] The Papacy takes, then, the place of the Father, the Son, and the Holy Ghost, or the place of God in the Church of God, as it was foretold the "Man of Sin" would do (2 Thess. ii. 4). A false prophet claiming infallibility and teaching false doctrine in the name of the Spirit of Truth; a false priest claiming sin-forgiving and soul-saving powers in both the visible and invisible world, while antagonizing the Gospel of our Lord Jesus Christ; a false king wearing the presumptuous tiara on his mitre, and claiming supremacy over the kings of the earth, as "the Ruler of Princes," to whom they must bow down and kneel as to one who has authority to crown and uncrown them at his will; and this in the name of Him who declared that His kingdom was "not of this world,"—such is the papal anti-Christ. If God humbling Himself to take

[1] 1 John ii. 27, R.V.

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the place of man be the "mystery of godliness," man exalting himself to take the place of God is surely "the mystery of iniquity."

The principle of the Papacy is a Satanic parody of the Christo-centric principle in the kingdom of God. As such the Papacy is an opposing foundation (ὁ ἀντικείμενος, 2 Thess. ii. 4); for "other foundation (κείμενον) can no man lay than that which is laid, which is Jesus Christ" (1 Cor. iii. 11). Judged by the Christo-centric principle, the whole Romish system is eccentric, or off the centre. Its axis is antichristian; and if its axis is antichristian, what must its revolutions be?

2. *False Philosophies.*

"Take heed," says the Apostle Paul, "lest there shall be any one that maketh a spoil of you through his philosophy and vain deceit, after the tradition of men, after the rudiments of the world, and not after Christ; for in Him dwelleth all the fulness of the Godhead bodily; and in Him ye are made full, who is the head of all principality and power."[1] It is a suggestive fact that this is the only passage in the New Testament in which the word φιλοσοφία, philosophy, occurs. It is claimed for philosophy that it is only a higher form of knowledge. Its history may well raise the question whether that which is called philosophy be not a higher form of ignorance. "As chalk consists of little else but the remains of dead animalculæ," says Balfour, "so the history of thought consists of little else but an accumulation of abandoned explanations."[2] An examination of Ueberweg's "History of Philosophy," or any other similarly comprehensive work on the subject, will amply justify this statement. But there is true as well as false philosophy. It has been well said that "the rule of all genuine philosophy" is that it should be κατὰ Χριστόν, "according to Christ,"[3] or should

[1] Col. ii. 8–10, R.V.

[2] "Foundations of Belief," p. 255.

[3] Col. ii. 8.

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harmonize with and centre in Him. False philosophies are characterized and condemned by the apostle as *οὐ κατὰ Χριστόν*, "not according to Christ."

Christ, then, is the rule or standard by which systems of philosophy should be judged. They aim at the most universal knowledge. Do they harmonize with the knowledge of Him in whom dwells "all the fulness of the Godhead bodily"? Mahan's "Critical History of Philosophy" classifies philosophical systems under four heads: (1) Those which claim that knowledge is possible only in its *objective* form, as materialism; (2) that knowledge is only possible in its *subjective* form, the position of idealism which resolves all realities into mind or its operations; (3) that "deny the validity of knowledge both in its *objective* and *subjective* forms," affirming knowledge to be exclusively phenomenal, the position of Scepticism, represented by the agnosticism of Herbert Spencer; (4) that "affirm knowledge to be possible and actual in both forms," the position of Realism, which acknowledges the existence of both mind and matter. The Person and teachings of Christ involve the distinctness and reality of mind and matter, and thus confirm the position of Realism. Christ taught that "God is a Spirit," and affirmed the existence of separate souls or disembodied spirits, and also the doctrine of the resurrection of the body. He was Himself "God manifest in the flesh"; in Him dwelleth "all the fulness of the Godhead bodily" (*σωματικῶς*). As involving the truth of Realism, or the Reality of mind and matter, the Person and teachings of Christ exclude the antagonistic systems of Materialism, Idealism, and Scepticism.

Agnosticism, Materialism, Naturalism, and Pessimism are all geo-centric in character. The first is centered in human ignorance, and the ignorance of the natural or carnal mind; the second is centered in matter, the common stuff of which the world is made; the third is centered in nature, a mere process of becoming; while the fourth is centered in evil.

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All these systems centre the higher in the lower, instead of the lower in the higher. In contrast with these Christianity is helio-centric, as centering the material in the moral, the natural in the spiritual, the human in the Divine.

The chief service of philosophy is to demonstrate "the natural and essential weakness of human intelligence, to lend new and exclusive authority to a supernatural revelation, and to supersede reason by faith as the sole organ of religious knowledge"[1] (1 Cor. i. 21, ii. 6, iii. 19, 20).

3. *False Science.*

We are warned in the Scriptures to avoid "oppositions of science falsely so called, which some professing have erred concerning the faith."[2] The modern hypothesis of evolution, in its extreme or sceptical form of evolution without a designing mind, without a God, and without a goal, is condemned by Reason as well as Revelation. The word evolution simply means unfolding, and correctly describes a process conspicuous in Nature; but it is an unfolding of what is there, and nothing more. The hypothesis that mind is evolved from matter, the living from the lifeless, the moral from the mineral, etc., makes the effect transcend the cause. The mental and moral universe must have a cause equal to itself. Materialistic science is Ptolemaic, not Copernican. It makes the greater to depend on the less, instead of the less on the greater.

The Christo-centric principle is a clue to the discovery of scientific truth. Guided by the light of Revelation, which shows us man in "the image of God" as the goal of the geologic and historic progress, we trace the gradual development of the higher forms of life, the ever-growing centralization of the nervous system, the rise and increasing perfection of the vertebrate order, and the parallel development of the

[1] "Introd. to the Philosophy of Religion," Caird, p. 19.
[2] 1 Tim. vi. 20, 21.

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exogens in the vegetable world, the advent of man, the growth of families, societies, states, empires, the course of the four great kingdoms of prophecy, the foundation and progress of the kingdom of God, the first and second advents of Christ, the revelation of the Divine Being in the likeness of man, the renovation of man in the Divine image, and then the full and final establishment of man thus restored and raised to the Divine likeness in that dominion for which he was designed from the beginning. Seen from its goal, the work is one. The entire movement is harmonious, and is visibly guided to a worthy end.

Science is directing our thoughts in the present day to "*the Ascent of Man*," that is, of the natural man. In attempting to account for the origin of man's mental and moral nature, it is probably dealing with a problem beyond its power to solve. Whatever be the truth on this subject, no view of the derivation of man can be correct which omits what might be called "*the descent of man*," in the sense of the descent into this world from above of the new or spiritual man. No process of merely natural evolution is sufficient to account for the facts of human history. Jesus Christ has appeared in the world. He died and rose from the dead. Millions of persons during the last nineteen centuries have become sharers of His resurrection life. They have been born (ἄνωθεν) "from above."[1] The kingdom of God, like its Founder, has *come down* from above. It descends "from God out of heaven." In this it is contrasted with all that is "from beneath," ἐκ τῶν κάτω,[2] whether from this world or from the inferior and Satanic world. Christianity places before us *the descent of God, and the ascent of man in Him.* Let us beware of false geo-centric science. No science can be worthy of acceptance which perverts or ignores the dominant elements of the subject with which it deals.

[1] John iii. 7. [2] John viii. 23.

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II. Positive or Constructive Use of the Christo-centric Principle.

1. *Use as the clue to truth.*

On the application of the Christo-centric principle, Revelation unlocks her secret treasures; the Law and the Prophets become luminous; theology attains a systematic character; morality finds an adequate foundation; philosophy becomes the handmaid of religion; history the story of redemption, and prophecy its completion and crown.

2. *Application to individual spiritual life.*

Union with Christ is the secret of holiness and happiness. "All spiritual life and holiness are treasured up in the fulness of Christ, and communicated to us by union with Him."[1] The gospel makes known to us not only "the unsearchable riches of Christ,"[2] but "the riches of the glory of this mystery which is Christ in you the hope of glory."[3] We thus learn what is in Him and what is potentially in us. "All fulness" dwells in Him, and He Himself dwells in us, as received by faith, and hence, potentially, all fulness. Wondrous truth! Who that knows and enjoys it can refrain from the grateful doxology, "Unto Him that is able to do exceeding abundantly above all that we ask or think, according to the power that worketh in us, unto Him be the glory in the church and in Christ Jesus unto all the generations of the age of the ages."[4] May the potential fulness become the actual in our experience.

3. *Application to the order and unity of the Christian Church.*

As the Church is "the body of Christ," or the mystical body of which He is the Head, her order, unity, and peace can only be enjoyed as she maintains entire dependence on

[1] Marshall on "Sanctification," p. 102. [2] Eph. iii. 8.
[3] Col. i. 27. [4] Eph. iii. 20, 21.

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Him, and sole subjection to His authority. In no other name should His people meet but His. "Where two or three are gathered together in My name, there am I in the midst of them."[1] No other headship should they acknowledge but His. The Church has not a plurality of heads. Her head is not Christ and anti-Christ, or Christ and Cæsar, but Christ alone. If the Church is spiritual, her head must be spiritual. If she is divine, her head must be divine. She is and remains the Church of Christ only by "holding the Head,"[2] her one Head, her Head in heaven.

4. *Application to the order and perfection of the future universal kingdom.*

It is clearly revealed to us in "the sure word of prophecy" that "in the dispensation of the fulness of times" God will "gather together in one all things in Christ," or "sum up all things in Christ, the things in the heavens, and the things upon the earth."[3] The Greek verb here employed signifies the gathering together under a single headship. This is the kingdom unveiled in the visions of Daniel, and those of the Apocalypse. The latter prophecy has been well described as "the story of Christ's kingdom." It shows us the successive subjugation of all things to Him.

In his admirable work, "Outlines of Unfulfilled Prophecy," Professor Birks lays down a number of "general propositions on the revealed nature of the kingdom of God" which cast considerable light on the question. (1) "There is an essential dominion of God which cannot come because it is already in being." (2) "This essential dominion may be distinguished into two parts—a manifest dominion over all unfallen creatures, and a secret control over the fallen." (3) "Hence the kingdom of God which is still to come, or which was represented in earlier times as the object of hope to the Church, must denote the kingdom of redemption." (4) "This kingdom really began from the first hour when visible fruits of redemption began to appear." (5) "The two distinctive marks of the secret kingdom of God are mystery and forbearance." (6) The Jewish theocracy from Moses onward, and especially under David and the

[1] Matt. xviii. 20. [2] Col. ii. 19. [3] Eph. i. 9, 10, R.V.

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kings of his line, may thus be called the kingdom of God upon earth." "Hence the kingdom of David is both a type and earnest of the kingdom of God hereafter to be fully established." (7) "In contrast, however, with the times of the gospel the kingdom of God was not yet begun." (8) "Our Lord began His public ministry with the message—'Repent, for the kingdom of heaven is at hand.'" "The true King so long promised was now come. The will of the King was about to be more fully revealed. The enforcement of that will by righteous judgment was drawing nigh." (9) "The kingdom itself however is still future. For the King who had appeared for a season is now withdrawn. He is gone to the Father and we see Him no more." (10) Having "emptied Himself of His glory, and ceased for a moment to exercise visibly that dominion which He held from the beginning as the Word of God . . . when His atonement was finished. . . . He reassumed that eternal dominion which He had laid aside for a little season . . . and since He enjoys it in human nature, it is a personal reward of inconceivable dignity. But it is not the kingdom that was promised Him by His Father." (11) "Our Lord exercises all power on earth as the fulfiller of the Divine counsels, who orders all the events of Providence by His secret wisdom. The book of the Divine decrees is given into His hand." (12) He has a further kingdom in His visible Church. "Here the King is still spiritually present by the Holy Spirit, His Vicar and Deputy during His absence." Yet the Church is rather the preparation for the kingdom than its real advent. The "times of the Gentiles" are called "the mystery of God," and forbearance and long-suffering rather than righteous judgment is the revealed character of the dispensation." (13) "The proper kingdom of Christ must be marked by three characters which have never yet been exhibited together. There must be the visible presence of the King, a full and clear manifestation of His righteous will, and the public enforcement of His just authority by the punishment of the rebellious, and the open reward of His faithful servants." (14) "When our Lord shall return in glory, He will subdue all enemies under His feet. But this subjugation will not be the work of a moment, nor can it be complete until death and hell have been cast into the lake of fire." (15) "Our Lord, the Son of God, is essentially one with the Father, and an equal sharer in Divine glory. As the Son of God, begotten before every creature, and the Son of man who has assumed a created nature into eternal union with Himself, He is essentially and for ever subordinate to the Father. During His first advent His subordination was fully manifested, but His Divine glory, as the true and supreme God, was wonderfully concealed. It is in harmony with the Divine wisdom that the subordination should be veiled for a season towards those fallen and rebellious creatures among whom His condescension has been denied and despised, while His Divine glory is manifested for a season. This appears to be the work of the second advent. 'For the Father judgeth no man, but hath committed all judg-

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ment unto the Son.' He will appear in the glory of the Father, and all the angels will worship Him." (16) "The dominion of God in heaven from the beginning has been the reign of the Father, and the Son, by the Spirit, in perfect unity of Divine perfection, but also with the public subordination of the Son to the Father, who is the brightness of His glory, and the express image of His Person, the image of the invisible God. *When the work of redemption is complete, the character of the kingdom of God over His ransomed creation must be the very same.* Hence, as soon as the work of subjugation is complete, when all enemies have been put under the feet of Christ, and the whole universe owns Him to be the First and the Last, the Head and Lord of creation, *He will, by a solemn act before the whole universe, profess His own subordination to the eternal Father.* Thenceforward it will be the perfected kingdom of God and of Christ. The throne of God and of the Lamb will be set up for ever. Christ, as the Son of man, shall sit on the throne of David, and be a perpetual worshipper; while, as the Lamb in the midst of the throne, He will perpetually share with His Father the homage of the universe, '*that God may be all in all.*'"

The Kingdom of Christ as the Goal and Crown of Progressive Social Co-ordination.

It is a well-known fact in Nature that "from the lowest living forms upwards the degree of development is marked by the degree in which the several parts constitute a co-operative assemblage. The advance from those creatures which live on in each part when cut to pieces, up to those creatures which cannot lose any considerable part without death, nor any inconsiderable part without great constitutional disturbance, is an advance to creatures which, while more integrated in respect to their solidification, are also more integrated as consisting of organs that live for and by each other."[1] There is a like contrast between "undeveloped and developed societies." The progress of social order and perfection is marked by "the ever-increasing co-ordination of parts." In human history families have united into tribes, tribes into nations, nations into kingdoms, and kingdoms into empires or confederacies. Viewed as a society, the

[1] H. Spencer, "First Principles," p. 328.

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Church of Christ presents in its plan the highest conception of centralization which the world has ever seen. "There is one Body and one Spirit, even as ye are called in one Hope of your calling; one Lord, one Faith, one Baptism; one God and Father of all, who is over all, and through all, and in all."[1] "As we have many members in one body, and all members have not the same office, so we being many are one body in Christ, and every one members one of another."[2] "The multitude of them that believed were of one heart, and of one soul."[3] That such a union of His people was the desire of Christ, is evident from His prayer, "That they all may be one, as Thou, Father, art in Me, and I in Thee, that they also may be One in Us . . . one even as We are One; I in them, and Thou in Me, that they may be perfected into one."[4] But the Church of Christ is an election out of all nations, and not the universal society foretold in prophecy. It is only in the kingdom of God in its final form that all things in heaven and earth shall be associated and co-ordinated as a single society, under a single head. To this sublime end the mighty movement of co-ordination and unification in nature, history, Providence, and grace has been progressing throughout the ages of the past, and the ever-growing progress is an ever-growing pledge and prophecy of the future kingdom of Christ, which shall include both heaven and earth, and of that final society of the universe in which God shall be "all in all."[5]

Chronology of the Kingdom of Christ.

The history and chronology of the kingdom of Christ are revealed to us in prophecy in the story of the five empires and their times. As bearing on this subject, the present work is a sequel to a series of works I have already published

[1] Eph. iv. 4–6. [2] Rom. xii. 4, 5. [3] Acts iv. 32.
[4] John xvii. 20–23. [5] 1 Cor. xv. 28.

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on the prophetic programme. While in my previous works the chronology of prophecy, as fulfilled in history, has been prominent, in the present work the adjustment of revealed chronology to the chronology of Nature has been specially considered. The second volume, or appendix, of this work relates exclusively to the adjustment of revealed to natural chronology. Its hundred thousand solar and lunar positions belong to both natural chronology and revealed; they are written in Nature as part of its course, and they are calculated from revealed chronology, and belong to the calendar of redemption history.

Chronological and other Signs of the Nearness of Christ's Kingdom.

In the prophecies of Daniel the four kingdoms of the great "Image" precede the kingdom of the great "mountain" which finally fills the earth. The prophetic times belong chiefly to the fourth Gentile kingdom, and especially to its latter half, or 1,260 years Papal and Mohammedan period. The French Revolution of last century and the fall of the Papal temporal power coincident with the decree of Papal infallibility in 1870, marked the termination of 1,260 years as measured from the Justinian and Phocas starting points in Papal history.[1] Reckoned from the Saracenic capture of Jerusalem and subjugation of Palestine in A.D. 637, 1,260 lunar years expired in 1860, the date of the liberation of the Lebanon district from Turkish rule, consequent upon the massacre of Christians in Syria, and also of the formation of the Universal Israelite Alliance, which has now branches throughout the world. Reckoned in solar form from A.D. 637, 1,260 years will terminate in the year 1897, and present events in Armenia confirm the view that we are on the eve

[1] See Calendar of the "Times of the Gentiles," in the "Approaching End of the Age."

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of the break-up of Mohammedan power in the East. The parallel prophetic period 2,300 years (Dan. viii.) reached an important terminus in A.D. 1821, as reckoned from the invasion of Greece by Xerxes. The year 1821 marks the commencement of the liberation of subject Christian populations from Turkish domination. It was the date of the liberation of Greece, followed by the massacre of Scio, where out of one hundred thousand inhabitants only nine hundred remained. "Since 1821 Turkey has lost Greece and Servia, Moldavia and Wallachia, Morocco, Algeria and Egypt, Bosnia, Herzegovina and Bulgaria."[1] The terrible massacre now in progress in Armenia will probably bring about a further and much more extensive disintegration of Turkish dominion, if not its total extinction. It may be noted that 2,300 years in *lunar* form extend from B.C. 336, the initial date of Alexander's conquests (prominent in the prophecy of the ram and he-goat, Daniel viii.), to A.D. 1897, the date of the expiration of 1,260 solar years from the setting up of Saracenic rule in Palestine. Among all the signs of the nearness of "the end of the age," none perhaps are more important than those connected with the state of the Jewish people. The removal of Jewish disabilities, and coincident rise of Jewish wealth, learning, and social and political influence; the unification of the Jews by various alliances, especially the Universal Israelite Alliance, which has countless branches in the present day all over the world; the persecution of the Jews on the Continent, and particularly in Russia, where they are so numerous, and the constant growth of a national desire on the part of the Jewish people to return to the land of their fathers, all point to the proximity of the close of the "times of the Gentiles," which are throughout times of the depression and dispersion of the Jews.

The present widespread preaching of the Gospel as a "wit-

[1] "Approaching End," p. 439.

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ness to all nations" is a further sign of the nearness of the end. To these signs it is important to add those which arise from the remarkable but much overlooked *analogy of the Jewish and Christian dispensations*, recognised in the fore-views of prophecy. "The catastrophe which broke up the Jewish Commonwealth in the time of Titus being of the same general character as that which is to break up the present dispensation of our world, the prophetic description of the one merges quite appropriately into that of the other, as Jesus answers the questions of the disciples about the destruction of Jerusalem and "the end of the world."[1] In the historical section (pp. 244, 245), we showed the analogy between Jewish and Christian history viewed in their widest extent, the analogy of the Jewish and Christian dispensations, including their great apostasies and reformation movements. The decline of the reformation movement in each case is similar, and solemnly significant. The Pharisees, Sadducees, and Herodians of the close of the Jewish dispensation have their counterparts in the present day. It is not too much to say that the fatal rejection of Christ which marked the termination of Jewish national history is being repeated on a wider scale in modern scepticism; while the cry "where is the promise of His coming?" and the boast that "all things continue as they were from the beginning of the creation," are foretold features of "the last days," and proclaim to those who have eyes to see and ears to hear that the advent of the Lord "as a thief in the night" is now indeed at hand.

With that great advent will begin the everlasting kingdom of God. The Lord Himself shall descend from heaven with a shout, with the voice of the archangel, and with the trump of God, and in a moment, swift as a lightning flash shall take place the Resurrection, the Transformation, and the Rapture of the Church! Assembled from earth and

[1] McCosh, "The Supernatural in Relation to the Natural," p. 226.

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heaven, united, perfected, glorified, the saints "shall meet the Lord in the air," and enter with Him on the new life and triumphant joys and occupations of eternity. Satan shall be cast out, and his dominion abolished. The saints shall judge the world, and administer with Christ the affairs of his kingdom. Earth and heaven shall be one. The angels of God shall ascend and descend upon the Son of man. Death shall be swallowed up in victory. From shore to shore, and star to star, shall shine the light of the new Jerusalem, and the song of redemption which began at Bethlehem shall fill the surrounding spheres and systems of creation with the matchless music of its eternal harmonies. "Even so come, Lord Jesus."

5. *Endless exhibition of the Christo-centric principle in Christ as the Incarnate Word.*

Our Lord Jesus Christ is and ever will be the centre of creation as the personal manifestation of God. It is fitting to close the present volume with this great thought.

"GOD WAS MANIFESTED IN THE FLESH." [1]

The Incarnation of the Word of God! Christ is the utterance of an utterance of the unutterable

God is unutterable. He is infinite, absolute, eternal, unchangeable. No eye can see Him. No ear can hear Him. No hand can touch Him. No mind can conceive Him.

God is Love, and love seeks expression, revelation, impartation. Love can only awaken love by revealing itself. God is a Father. His children cannot love Him, honour Him, obey Him, commune with Him, while in ignorance of Him. Hence Nature, Revelation, Christ; yea—ascending beyond the confines of time—hence the Eternal "Word." God

[1] "The living God . . . He who was manifested in the flesh,' (1 Tim. iii. 15, 16, R.V.).

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speaks Himself from everlasting. Christ as the Eternal Word is the eternal utterance of God.

The Word becomes the Creator. The Word utters itself in creation. It speaks in suns and stars and systems of stars. But matter cannot utter its full meaning. It speaks in living forms of beauty, but the language is defective. No words in that language can utter God's higher thoughts. It speaks in mind, heart, conscience; now the revelation flows in a strong flood, but the message is incomplete. It speaks in Providence, in Promise, in Law, in Prophecy, but still the Great Personality remains unspoken. The Word itself, the Personal Word, has never been fully manifested. It continues in the inaccessible glory of its uncreated form.

Then the "Word" becomes Incarnate. In infinite condescension God is personally revealed. In human form, in utter abasement and weakness, the very mind, and heart, and being of God are personally displayed. Supernatural power, wisdom, love, look down no more from the infinite above us, but look out on us through human eyes. They flash on us through the pale face of sorrow, anger, sympathy. They shine on us through tears. They speak to us in human speech, in language which can be comprehended, written, remembered, treasured, pondered; which can become the very word of life to the world. And that Word speaks Itself. It is self-revealing. The Incarnate One tells us who He is, and why He has come to dwell with us. What words He speaks! How our hearts burn within us while we hear them! How they break us down, and pierce us, and reveal us to ourselves, and draw us, and bind us to Him, and bless us! Oh, the power of the words of the Eternal Word! Sharp as a two-edged sword, sweet as the balm of Gilead, healing as the waters of Siloam.

But is that voice now silent in the world? Is its sound only a memory? No! The Word which became flesh is now incarnated anew by His Spirit. His voice still speaks.

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Not in Galilee merely does the "Word" discourse to listening multitudes on the mountain, or by the lake, or in the synagogue, but all over the world, and from century to century, He speaks by myriads of lips and lives. Christ, the Incarnation of God, is Himself incarnated in the Church, which is His body. What body is to spirit the Church is to Him. It reveals Him. It is His manifestation and instrument. He walks the world still in that Church, healing and blessing where He goes. He lays His hands still on fevered brows, and bleeding hearts, and burdened consciences. He speaks, and the deaf hear, yea, the very dead arise. The old gospel story is repeated, is re-enacted, on the broad stage of human life and history. God is continuously revealed.

But, oh, what a revelation is yet to come! How shall God utter Himself when "The Word of God" descends personally in all His power and glory to judge and reign in righteousness? And how shall the glorified Church of Christ in that day declare the glory of God? How shall her brightness outshine the sun, and eclipse the stars? Love has spoken, Power shall speak. Might has been revealed in weakness, wealth in poverty, wisdom in folly, glory in shame, but now shall they appear in their true characters. "Our God shall come and shall not keep silence." "Every eye shall see Him." "We shall see Him as He is."

And shall that Personal revelation ever cease? Shall that sun ever set? No, never more shall His presence be withdrawn. It shall be perpetual. It shall shine on and on, with beams that bless the universe for ever. The Lamb shall remain for ever on the throne. And through all the endless ages of the future the blood-bought, blood-washed Church which is His body shall remain His word, and witness, and revelation. In languages still unborn that Church shall yet speak. In worlds still uncreated shall she minister. To myriads yet to be shall she make known the unsearchable

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riches of Divine redeeming love. No part of this great universe shall be unvisited by her. She shall be the voice of Jesus throughout all its vast extent, the hand of Jesus lifted up everywhere to guide, and help, and govern.

INCARNATION! What is it? Revelation, Manifestation, Union, Communion, Condescension, Exaltation, Salvation, Glory, divine, eternal. Speech was not made to utter it. Its words are deeds.

Incarnation,—the dwelling of Deity! The perpetual home of God! "This is my rest for ever; here will I dwell, for I have desired it."

From the dateless ages of the past has the Temple of God been rising. Built by Power invisible for the invisible Presence, it has slowly and majestically risen amid the voiceless solitudes of space and measureless amplitudes of time; it has spread its foundations far and wide, beyond the power of eye to scan or mind to calculate; it has reared its walls and arches, its gates and courts, in scenes whose magnificence transcends the utmost conceptions of the imagination. As they have successively appeared in their various stages, those high stairs and wondrous porticoes, those entrances and pillared aisles, have been tenanted by angels, whose songs have echoed amid the dawning brightness of the dimly discovered purposes of God. System has been added to system; worlds have been filled with life and order; governments have been created of free, intelligent, moral beings, bound together by moral laws; heaven itself has reared its throne of glory within the veil dividing the visible from the unseen, but the Temple knew not the Presence that inhabited it, for God dwelleth not in sun or star; no mountain's height can be His home; no material structure can be His habitation; spirit needs a living embodiment, mind a personal manifestation. Nor could glory utter the name of God. Depths were needed. Sorrow and shame and the grave were wanted to speak His conde-

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scending love. The holy of holies could only be revealed in Incarnation, with its blood-sprinkled mercy seat and sacred veil rent from the top throughout. Atonement and death were to be the approaches to that Holiest of all. So came Calvary. The Man of sorrows hung upon the Cross. That was the supreme manifestation of God. That was the revelation of Deity.

O arms outstretched upon that cross of shame! How would ye gather, and shelter, and cherish, and save! O hands transfixed in agony! How do ye give, and guide, and bless! O life, slow ebbing from life's fountain head, how thou dost redeem and renovate! Here is the unveiling of God. Here is the dwelling of Deity. And those who see and know Him become themselves His dwelling. On them Deity descends. Reconciled, regenerated, raising their hands, and lifting their faces heavenward, God comes upon them like the rushing wind, and fills them; not that Pentecostal Church alone, but the Church of Christ of all lands and ages. And so the Temple rises, and as it rises is filled with the ever-growing presence of the one inspiring Spirit, making room for Himself in the secret chambers of the soul, and uniting the souls which He inhabits by a common inspiration, until all shall become one,—one heart and one soul for evermore.

This is that Temple shadowed forth of old by the Tabernacle of Moses and the Sanctuary of Solomon, which God filled with His typical Presence. "But will God in very deed dwell with men on the earth?" Heaven and the heaven of heavens cannot contain Him;—will He dwell with men? Behold the answer! See the living Temple now indwelt by His Spiritual Presence! Behold the mystical Body in which He will dwell for ever! As yet its walls are incomplete, but they near completion. The upper courses of the sacred structure are being laid—stone is being added to stone with silent celerity. He who laid of old its founda-

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tions shall yet bring forth the top stone of the building; He shall finish what His wisdom and His love began, and shall glorify the house of His glory. Then shall He fill His living house with His living Presence. Begun on earth, completed in heaven, that Temple shall then descend from heaven to earth. Christ and the Church of Christ; "the general assembly and Church of the first-born"; the great multitude of the redeemed that no man can number; the sons of light, countless as the dews of the field or the stars of the firmament; patriarchs, prophets, apostles, saints and martyrs, confessors and reformers, all the servants and the sons of the Most High; one great and glorious Church, without spot, or blemish, or division—loving as they are loved, knowing as they are known, one with each other and with their Lord, animated, inspired, filled with the very mind and will and power and presence of God—that great living Temple *shall descend into a world renewed and fitted to receive it*, to be henceforth its holy of holies, and the Sanctuary in the celestial kingdom of which it shall be the centre. Behold the New Jerusalem—the Bride of the Lamb! Behold the city that is a Temple, the Temple that is a city, the metropolis of the world, the Sanctuary of the universe, the altar-centre of sacrificial love, the throne-centre of everlasting power. No Temple has that city, for it is itself the Temple of God—a society and a sanctuary in one; the glory of creation; the radiant solar orb, outshining Sirius and Arcturus and the host of heaven; a city whose gates shall never be shut—refusing no friend, fearing no foe; a Temple whose praises shall never be silent, where night can never enter, sin can never darken or defile, sorrow can never come, and where God is all in all! Behold the goal of the purposes of God, the end of Nature and Providence, and the evolution of the ages; the consummation of a plan whose fulfilment we can mark and measure as we study the records of the past and the prophecies of the future, written in rock and book, in

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sun and star, in soul and system, within and without, beneath and above, in letters luminous and living,—the very handwriting of God! Blind are the philosophies which ignore its meaning. Dark is the mind which has never seen the splendour of its light. A whole heaven of spiritual truth is there, casting its rays upon the physical and moral universe, illuminating its dark depths, glorifying its boundless prospect, and uniting its entire extent as the dominion of a power and plan incomparable and Divine.

I thank Thee, O Father, Lord of heaven and earth,
because Thou hast hid these things from
the wise and understanding,
and hast revealed them unto babes;
even so, Father, for so it seemed good in Thy sight.
Infinite in all things, Thou art infinite in Love,
Compassion, and Condescension; revealing Thy Power
in Creation, Thou hast revealed Thy Person
in the face of Jesus Christ,
the brightness of Thy glory, Thine only begotten Son,
the Word made flesh;
by whom and for whom are all things,
and in whom all things consist;
the Alpha and Omega,
the Architect and Archetype,
the Centre and the Goal of Creation,
the First and the Last;
Who loved us, and gave Himself for us,
that He might purify us, and present us to Himself,
without spot and blemish; having borne Himself
our sins upon the Cross;
Who is exalted now to Thy right hand in heaven,
our Light, and Life, and Lord;
and is about to return in the glory of His Kingdom,

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to judge in righteousness, and reign in peace,
His saints being enthroned with Him,
and rewarded according to their works,
and manifested as His mystical Body,
the living Temple of the living God,
filled with His fulness, and glorified with His glory,
His holy blessed habitation for ever.
Unto Thee, thrice Holy Lord God Almighty,
King Eternal, Immortal, Invisible,
be honour, power, and praise for ever.
Worthy art Thou, our Father and our God
of everlasting glory; and
Worthy is the Lamb who was slain and is enthroned
whose Kingdom is without end!

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APPENDIX.

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APPENDIX.

I. Explanation of the Tables in Vol. II.

FOR the sake of those who desire a brief and simple explanation of the nature and use of the Astronomic appendix to this work (vol. ii.) we put the required information in the form of answers to the following elementary questions.

Q. You state that the Prophetic Times in the book of Daniel are Astronomical cycles. What is the most conclusive proof that they are so?

A. The calculation of the Astronomical Tables contained in the appendix of this work (vol. ii.) from those Prophetic Times.

Q. What is the nature of the Tables?

A. They are Tables giving the dates of all the Vernal Equinoxes and mean and true new moons for 3,555 years; from the probable date of the Exodus, B.C. 1622 to A.D. 1934.

Q. What number of new moons do the Tables contain?

A. 87,938 new moons (43,969 mean, and 43,969 true new moons). They also contain 4,862 mean full moons, and 4,862 true full moons connected with lunar eclipses.

Q. What is the number of Solar and Lunar dates in the Tables taken together?

A. 101,217 Solar and Lunar dates.

Q. What is their degree of accuracy?

A. They are calculated to days, hours, and minutes.

Q. How is their correctness proved?

A. By their correspondence with historically recorded dates, and especially with more than 12,000 Solar and Lunar eclipses, ancient and modern, including all the calculated eclipses in Oppolzer's *Canon der Finsternisse*, up to A.D. 1934.

Q. Are the dates of the Tables stated in Greenwich Time?

A. No. For the convenience of students of Sacred Chronology they are stated throughout in Jerusalem Civil Time, which is 2 hrs. 21 mins. in advance of Greenwich Civil Time.

Q. How do the Prophetic Times in Daniel yield these dates?

A. The Prophetic Times in Daniel are astronomic cycles harmonising lunar months with solar years. From these very accurate cycles the measures of the synodic month and equinoctial year can be derived. The measure of the anomalistic month and the anomalistic year can be similarly derived from the Prophetic Times. On the basis of the measures thus obtained the Tables have been computed.

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Q. What are synodic and anomalistic months, and equinoctial and anomalistic years?

A. The synodic month is that measured by the return of the moon to conjunction with the sun; the anomalistic month is measured by the return of the moon to the Perigee or Apogee point in its orbit; the anomalistic year by the return of the sun to the Solar Perigee, or Apogee; while the equinoctial year is the year of the four seasons, and is measured by the return of the sun to the equinox of spring.

Q. Why is it needful to take into account anomalistic months and years in constructing such Tables?

A. Because the sun and moon do not go round and round with the regularity of the two hands of a watch, but are *alternately accelerated and retarded in their movements*, owing to the elliptical form of the orbits in which they travel. The anomaly of a celestial body is its angular distance from a point in its elliptic orbit intersected by the longer diameter of the ellipse. As the speed of the revolving planet or satellite differs according to its anomaly, to know its anomaly at a given moment is to know how far it is in advance of its mean place or behind it. A comparison of the mean and true moons in the tables will show the movement here referred to.

Q. You stated on page 167 that the speed of a planet is exactly adjusted to its distance and magnitude. Is this strictly true?

A. It is only strictly true when the maxima and minima of the planet's motion are taken into account, or the limits of its varying speed in its elliptic orbit.

Q. Would you explain in the simplest way possible the method of the derivation of these astronomical measures from the Prophetic Times?

A. The simplest and most interesting way to explain the matter is the historical. The leading facts in the narrative are as follows:—A Swiss astronomer when searching for a cycle which would harmonise lunar months with solar years lit by calculation upon the very accurate cycle of 315 years (see p. 329). It then occurred to him that this cycle is the quarter of the 1,260 years' period prominent in the book of Daniel, and in the Apocalypse, and that the period of 1,260 years must therefore be a luni-solar cycle. On examining it he found it was so. The thought then struck him that as the 1,260 years' period in Daniel was a luni-solar cycle it was likely that the 2,300 years' period in Daniel was also a luni-solar cycle. Since the Creator of Nature and Revealer of Scripture had made one of these two connected periods a cycle harmonising months and years, it seemed probable that He had also made the other such a cycle. On examining the 2,300 years' period, this astronomer found that it was a luni-solar cycle, and that it was remarkably exact, and the only secular cycle (or cycle measured by complete centuries) possible, within limits applicable to the course of human history. Considering further the mutual relation of these two interesting cycles, he noticed that each had a slight error of a few hours, and that these errors were in opposite directions. From this he con-

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cluded that 1,040 years, which is the difference of 1,260 and 2,300 years, must be a still closer cycle harmonising months, years, and days very exactly. On carefully testing it by the best tables in existence at the time, and by ancient and modern observations, he found it was such a cycle. Impressed with its singular accuracy, he named it the Daniel cycle (p. 330). Thus were these cycles discovered. Had the Prophetic Times not been in the Bible, the cycles in question would have remained unknown to the present day.

Q. How was it discovered that the 2,300 years' Prophetic period is a cycle of Solar and Lunar anomaly?

A. That discovery was a much later one, and was not made till more than a hundred years after the death of the Swiss astronomer to whom I referred. It was in the year 1870, when the decree of Papal Infallibility was immediately followed by the Franco-German war, the overthrow of the French Empire, and the fall of the Papal Temporal power, that my attention was directed to the fulfilment of historical and chronological prophecy taking place. Noticing in a book by Professor Birks, of Cambridge, a reference to the astronomic character of the prophetic Times discovered a century previously by a Swiss astronomer, I investigated the matter, and soon made further discoveries. I found that the 75 years added by Daniel to the period of "7 times," or 2,520 years, is the epact of the period, or the difference between 2,520 lunar and the same number of solar years. I also found that the historic interval from the Era of Nabonassar, Ptolemy's starting point for the Babylonian Kingdom, to the fall of the Western Roman Empire was just 1,260 lunar years. These and other discoveries stimulated inquiry, and I conceived the plan of deducing tables of mean Synodic months and equinoctial years from the Prophetic Times, for practical uses. But I required more than this. I wanted the *true* new moons as well as the *mean*, and there was no way of readily getting them on an extensive scale but *by employing in the computation some cycle of lunar anomaly.* A convenient and accurate cycle for the purpose is Houzeau's cycle of 7,412 days (20 years and 107 days), in which time the synodic and anomalistic months closely agree. Mr. Walter Maunder, the present Secretary of the Royal Astronomical Society, kindly undertook to calculate for me a table of true new moons for twenty-five centuries, employing Houzeau's cycle as a basis. While calculating this table he found to his surprise that the 2,300 years' prophetic period *is a cycle of a similar kind*, only much superior to Houzeau's cycle. In Houzeau's cycle of 7,412 days, the 251 synodic months closely agree with 269 anomalistic months, but the period is not one of complete years, whereas in the prophetic period 28,447 synodic months equal 30,487 anomalistic months, and both closely agree with 2,300 Equinoctial years. Mr. Maunder's discovery led me to examine the relation of the 2,300 years' period to the anomalistic year, and I found that in the course of 2,300 years the Solar Perigee advances 40 days with reference to the Equinoxes, which gave 21,000 years for its complete revolution. From these discoveries I

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saw that it was possible to derive the *true* new and full moons from the Prophetic Times in Daniel, as well as the *mean*.

Q. The calculation of such Tables must have been very laborious, and have taken a good deal of time. How was it accomplished?

A. I called to my aid a practised computer employed in the Nautical Almanac office, Mr. Thomas Wright, and proceeded to prepare the Tables, extending them to B.C. 1622, the probable date of the Exodus, and coming down to A.D. 1934, the termination of "seven times" (2,520 years) from the destruction of the Temple by Nebuchadnezzar, B.C. 587. About seventy separate calculations had to be made for each of the 3,555 years. The Tables might be compared to a bridge of 3,555 arches. Each year's figures were separately computed as a whole, and the terminal result in each year employed to test the correctness of the work.

Q. What elements in the Tables were derived directly from the prophetic times?

A. First, all the mean Vernal Equinoxes, and all the mean new moons were wholly derived from them. Secondly, all the sun's anomalies, and all the moon's anomalies by which the *true* new moons were got from the mean new moons, and the true full moons from the mean full moons, were also directly derived from the prophetic times; 87,938 anomalies in the one case, and 9,724 anomalies in the other; together 97,662 or nearly 100,000 anomalies. In the introduction to vol. ii. a specimen is given on p. xvi. of the derivation of the true new moons from the mean, by the application of the Sun's and Moon's anomalies. In this way the Tables were based exclusively on the Prophetic Times, and calculated by means of those times viewed as astronomic cycles.

Q. What is the use of the Tables?

A. They are of practical value in the study of civil and sacred history and chronology. Without a knowledge of the exact times of new moons and vernal equinoxes it is impossible to fix or verify the dates of a great variety and multiplicity of events in Jewish and Christian history, and in Egyptian, Assyrian, Grecian, Roman, Mohammedan, Indian, and Chinese chronology. The chief value of the Tables is the demonstration they afford of the astronomic character of the Prophetic Times, and the complete mutual adjustment of Natural and Revealed chronology. The adjustment is such as to imply and involve the revelation of Levitical and Prophetic Times, and hence the inspiration of Moses and the Prophets.

II. Some Additional Facts as to the Astronomic Character of the Prophetic Times.

Q. Are there not many luni-solar cycles equally correct with the most perfect among the Prophetic Times?

A. No. The 1,040 years' cycle (difference of 1,260 and 2,300 years), which the Swiss astronomer, De Cheseaux, named the Daniel Cycle, is not only the most correct of all luni-solar cycles, but may be considered

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as absolutely accurate for the time of Daniel, or at all events for the date of the Nabonassar Era, B.C. 747. The 379,852 days of this cycle divided by 12,863 months give 29 days 12 hours 44 min. 3 sec. for the length of the lunation; and divided by 1,040 years give 365 days 5 hours 48 min. 56 sec. for the length of the Solar year, and these were their actual measures at that time. Since that remote date the lunation has been shortened by the fraction of a second, while the equinoctial year has been shortened 7 or 8 seconds. The measures of the lunation and equinoctial year for the 8th century B.C. derived from the 1,040 years' luni-solar cycle may be regarded as their standard measures for that date. As the Prophetic Times were revealed in Babylon twenty-five centuries ago they are adjusted to contemporaneous chronology.

Q. You stated that the 2,300 years' cycle is the only *secular* cycle in existence (or cycle of complete centuries) applicable to historic times. Is it easy to demonstrate this?

A. Yes, perfectly so. 1237 lunations differ from 100 equinoctial years by $5{\cdot}116987^{d}$. On multiplying this fraction 50 times for 50 centuries and comparing the product with the measures of complete lunations, it will be found that the only centuries in which the divergence approximates to complete months are 6, 12, 18 and 23 centuries. The error in the first is more than a complete day, in the second two days, in the third three days, while in 2,300 years it is only ·4316, or less than half a day. Thus the 2,300 years' cycle stands alone in the first fifty centuries as a secular luni-solar cycle.

Q. Have you other reasons for regarding the 2,300 years' cycle as specially important?

A. Yes. It is the primary cycle adjusted to the correction of the error of the 19 years' lunar cycle which forms the base of the later Greek, Jewish, and Christian calendars (p. 339, and introduction to Tables, vol. ii., p. v.).

Further, it is of all large cycles the one best suited to form the foundation of a simple and correct Calendar, as I have shown on page 343. It is my expectation that it will be thus employed in the reformation of the Jewish and Christian Calendars which will doubtless be made in the future.

Q. Is there any relation traceable between the terminal 1,335 years in the prophecies of Daniel, and the 2,300 years' period of the treading down of the Sanctuary?

A. There is, and a most interesting one. I pointed out (p. 270) the law of analogy of times, according to which analogous changes are accomplished in analogous times. Under this law the major periods in redemption history are minor typical periods enlarged on several scales. Among these scales the most important are the year-day scale, and the two epact scales—the Calendar-solar and the Luni-solar. The first arises from the divergence of the Calendar year of 360 days from the Solar (tropical) of $365{\cdot}242^{d}$; the second from the divergence of the lunar year (12 lunations) from the solar year (tropical). The annual epact, or

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divergence, in the former is 5 days 48 min. 49 sec. ($5{\cdot}242^d$), and in the latter 10 days 21 hours ($10{\cdot}875^d$); the first epact is the $\frac{1}{70}$ of the year, the second the $\frac{1}{33}$. These annual epacts accumulate to large amounts in the course of centuries, and *stamp their own character on the periods with which they are connected.* In order to ascertain the Calendar epact in a particular number of years you have but to multiply $5{\cdot}242^d$ by the number of years in question (or, for greater accuracy, $5{\cdot}24224^d$); to ascertain the luni-solar epact multiply $10{\cdot}875^d$ by the number of years in the period.

Let us now apply these measures to the Prophetic Times, and mark the results. We shall find that the Prophetic Times are minor typical periods enlarged on epact scales.

(1) The 40 years of Israel's wanderings in the wilderness, and the 70 years of their captivity in Babylon, were prophetic periods.

Of what were these enlargements? The Calendar epact in these two periods gives the reply.

$$5{\cdot}242^d \times 40 = 7 \text{ months.}$$
$$5{\cdot}242^d \times 70 = 1 \text{ year.}$$

The 40 and 70 years' prophetic periods prominent in Jewish history are then the 7 months' period of the Levitical feasts, and the natural year, enlarged on the seventy fold epact scale connected with Jewish chronology. The suitability of the relation is evident. As Israel's 40 years in the wilderness began with a Passover, and ended with the entrance into the Promised land (analogous with the Feast of Tabernacles), it was in harmony with the relation of type and history that the 40 years should be an enlarged 7 months' period.

(2) But the 40 and 70 years' Jewish historic periods are themselves typical of still larger periods in the history of the Jewish people and Christian Church. Enlarge these then on the luni-solar epact scale connected with Christian chronology, and you have the two prophetic periods, 1,335 and 2,300 Solar years. The luni-solar epact in 1,335 years is 40 years, and in 2,300 years it is 70 years. From this it follows that the 1,335 and 2,300 years should be regarded as Wilderness and Sanctuary desolation periods, terminating with the entrance into the anti-typical Canaan, and the cleansing of the anti-typical sanctuary. That 1,335 and 2,300 years have this character in prophecy is evident (Dan. viii. 14; xii. 12, 13), and it is of no small importance that they should possess the hidden epact connection we have indicated with their corresponding historic types.

Q. What periods on the luni-solar (or Christian) epact scale correspond with 40 and 70 years?

A. 19 and 33 years. As in 40 and 70 years the Calendar (or Jewish) epact is 7 months and 1 year, so in 19 and 33 years the luni-solar (or Christian) epact is 7 months and 1 year (for as $40^y : 70^y :: 19^y : 33^y$).

Q. Did you not say that these two scales of epact periods are proportioned to the ratio of *average* to *normal* life?

A. Yes; I showed that while 70 years is the normal life period, 33

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years is the average life period, and that thus vital periodicity is in harmony with epact ratios and prophetic times.

Q. What is the ratio of the months of luni-solar epact to the days in the 19 and 33 years' cycles?

A. It is the remarkable ratio of 1 month to 1,000 days. Thus 19 years is nearly 7,000 days, and has 7 months' epact; while 33 years is about 12,000 days (12,053), and has 12 months' epact. I showed that the slight divergence of the epact from the exact ratio of 1 month to 1,000 days leads to important results in Messianic and prophetic times.

Q. Are any of the prophetic periods multiples of 7,000 or 12,000 days?

A. Yes; 2,300 years are 7,000 days × 120, or 12,000 days × 70. (2,300^y = 840,000 + 57 days.)

Q. Are the prophetic times accurate as epact enlargements of Typical periods?

A. When they differ from being exact multiples of the typical periods the difference implies perfection, not defect. Taking 40 and 70 years, and the corresponding 19 and 33 years (answering to each other on the two epact scales), and enlarging them 33 and 70 fold, we have the following periods :—

Typical, Historic and Messianic periods					Prophetic periods.
40	×	33	=	1320	1335
70	×	33	=	2310	2300
19	×	70	=	1330	1335
33	×	70	=	2310	2300

The prophetic times differ from exact 33 and 70 fold enlargements of the typical Jewish and Messianic periods with the remarkable results that the epact takes a form in which *fractional remainders are added to whole periods having the same ratio.* For example, the prophetic period 1,335 years exceeds 19 × 70 by 5 years; these extra 5 years make up for a deficiency in the epact of the 70 Metonic cycles, and also add a minor fraction of epact similar in ratio. 19 × 70 = 1,330 years, and as the luni-solar epact in 19 years is 7 months, in 1,330 years it is 7 × 70 = 490 months. But in 70 cycles there is a deficiency of 6 days;

16,450 lunations = 485,778 days.
1,330 trop. years = 485.772 ,,

Difference, 6 days.

As the epact is 11 days in each year, it is 55 days in 5 years, or 7 weeks and 6 days, making the epact in the whole period of 1,335 years 490 months + 49 days, or 70 weeks of months + 7 weeks of days.

We observe in this and other epacts in the prophetic times the reign of chronological analogy; *the fractional remainders are analogous to the whole periods to which they are added.* It is evident that the same principle prevails in the Apocalyptic order of 7 seals, followed by 7 trumpets, and these again by 7 vials; the 7 trumpets being contained under the

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7th seal, and the 7 vials under the 7th trumpet. In this order of terminal prophetic times the fractional remainders are governed by the same ratio as the larger periods to which they form addenda.

In the following table it will be seen that the epacts of the Prophetic Times are cast in what might be termed the Apocalyptic mould of a succession of periods, larger and smaller having a common ratio.

EPACTS IN PROPHETIC TIMES.

Years.	Lunar Epact.	Calendar Epact.
65	700+7 days.	
70		1 year+1 week.
490	7+7 years+7 months.	7 years+7 weeks.
1260	66 weeks of months+60 days.	18 „ +18 „ or 6000+600+6 days.
1290	280 days × 50+28 days.	
1335	490 months+49 days.	
2595	70+7 years+7+7 weeks.	

The peculiar form of the Prophetic period in Revelation ix. 15, which has caused so much perplexity to students of the Apocalypse, is evidently governed by the same law. The period in question is a year+a month +a day (360+30+1=391 years). In this case there is the combination of three periods, varying in magnitude, but analogous in character.

It should be remarked that in the vast period of the precession of the Equinoxes, 25,870 years, the luni-solar epact is 770 years (700+70), and thus analogous with the epacts in the Prophetic Times; and that in the course of the 21½ centuries of the Jewish dispensation the precession of the Equinoxes amounted to an entire sign.

Q. What do you consider epact to represent in Messianic and Prophetic Times?

A. I think the principle may be laid down that epact represents *atoning interval*, using the expression in a broad sense.

Q. Is there any important form of epact arising from the incommensurateness of the primary natural measures of time with which you have not dealt in your chapter on the Astronomical adjustment?

A. Yes. There are three principal forms of epact, two solar and one lunar. In order to be brief and simple, I confined myself to two of these, the *Calendar* epact, or 5¼ days' difference between the Calendar year of 360 days and the Julian year of 365¼ days, and the *Lunar* epact of 10 days 21 hours constituting the difference between the lunar year of 12 lunations, and the tropical or solar year. There is a third form of epact, which might be called the *Julian* epact, the 6 hours' difference between the Primitive equable year of 365 days, and the Julian, or Roman year, used in the Christian Calendar of 365¼ days. This epact amounts to one day in four years, and is intercalated as Leap Year day. The years in the Calendar run 365, 365, 365, and 366 days, every fourth year being 366 days.

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Q. Does the 6-hours' Julian fraction accumulate to measures in the Prophetic Times harmonious with those of the other epacts of which you have spoken?

A. It does. In the Prophetic period of 2,300 years it amounts to 365 days + 210 days, or a year and seven months (365 + 210 = 575 × 4 = 2,300), while in the period of "seven times," or 2,520 years, it amounts to 210 + 210 + 210 days, or 7 + 7 + 7 months (210 + 210 + 210 = 630 × 4 = 2,520). In reckoning "seven times" from the broad Babylonian or captivity era, extending from the Nabonassar era, B.C. 747, to the 19th year of Nebuchadnezzar, B.C. 587 (year of the burning of the Temple), the period of 2,520 years is extended by the addition of 160 years. This 160 years' interval is a 40 days' period in the 1,460 years revolution of the Julian epact (40 × 4 = 160). Looked at in the light of this epact, the 2,300 years' sanctuary cycle should be considered to be 1,460 + 840 years, or a year and 7 months; and the great period of 2,520 years as 840 + 840 + 840 years, or 7 + 7 + 7 months; and the 160 years connected with the initial and terminal judgments of the "seven times" as a 40 days' period.

Q. Is there anything of importance to be noticed in the Nabonassar era, February 26, B.C. 747, in relation to this Julian epact?

A February 26 is the fifty-seventh day of the Julian year. The time occupied by the Nabonassar year in falling back 57 days from February 26 to January 1 is 57 × 4 = 228 years; a period in which the Lunar epact is exactly 7 lunar years. This period terminated in the 2nd year of Darius, B.C. 520, the date of the restoration of the Temple under Haggai and Zechariah (Ezra iv. 24, v. 1; Haggai i. 1, ii. 19; Zech. i. 1). Regarding the annual fraction ·2422 as 8 days in 33 years, it grows to 57 days in 235 years (in which the luni-solar epact is 7 solar years), a period which has an important connection with the terminal vial era in the "Times of the Gentiles" (see "Light for the Last Days," ch. ii.). 57 days are a central atoning interval in redemption chronology (p. 315) whose analogues on the three epact scales are 235 years, 19 centuries and 40 centuries.

Q. With what redemption period do you connect the 6 hours' Julian epact in the Solar year?

A. With the most central and important of all the periods in Redemption Chronology, the last six hours of the life of our Lord on earth, the period during which He suffered and atoned upon the Cross. I look upon it as a significant fact that the 6 hours' interval is adjusted by the fraction in which it falls short of a full quarter of a day to accumulate to just 8 days in the Messianic period of 33 years, constituting that period an Equinox cycle (see Intro. to Vol. II., p. xxxvi.). The 33 years' Messianic period is that in which the annual solar fraction over complete days grows by repetition to the Palingenetic 8 days' redemption period lying at the base of Christian chronology.

Q. Do you consider the 33 years' Messianic cycle to be adjusted to the correction of the Julian Calendar?

A. I certainly do. As the error of the Julian Calendar amounts to 6 hours in 33 years, the most simple correction of the calendar is to

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shift the intercalation of the 8th leap-year day from the 32nd year to the 33rd. Herschel commends this plan, which was suggested five centuries before the Gregorian reformation, as "not only far more simple, but materially more exact than the Gregorian." ("Outlines of Astronomy," p. 690.)

III. Some omitted facts as to the Levitical and Jewish Calendar.

Q. Was the Levitical Calendar adjusted to the equinox interval?

A. It was in a very remarkable manner. The first month of the Jewish sacred year was that of the Passover ("This month shall be unto you the beginning of months; it shall be the first month of the year unto you."—Exod. xii. 1), and was perpetually kept by the wave sheaf ordinance to the vernal equinox season. This was the season appointed for the Exodus of Israel, and later on for the Redemption of the world. On the other hand the feasts of the 7th or Sabbatic month of the Calendar fell at the time of the autumnal equinox.

From the 1st of Nisan to the 10th of Tisri, the great Day of Atonement, the interval was 6 lunar months and 9–10 days, or 186½ days. The gradual approximation of the equinox interval to this divinely appointed Jewish Calendar measure can be traced in the following table:—

Interval from the Vernal to the Autumnal Equinox.

B.C. 4000	...	...	182	days	14	hours
„ 3000	...	...	183	„	18	„
„ 2100	...	...	184	„	21	„
„ 1600	...	...	185	„	11	„
„ 500	...	...	186	„	4	„
A.D. 1	...	...	186	„	9	„
„ 1268	...	...	186	„	13	„
„ 1900	...	...	186	„	10	„

The present adjustment of the Jewish Calendar to the Equinox interval is very marked. In the years 1844, 1863, 1882, etc., the 1st Nisan fell on Mar. 21, and the Day of Atonement (Kipur) on Sept. 23. This position is repeated in the revolution of the 19 years lunar cycle.

Q. Has the 186 days interval from the vernal to the autumnal equinox, which has existed during the whole of the Christian dispensation, any hidden relation to other cycles which you have not thus far mentioned?

A. It forms a cycle of 360 tides, or 180 lunar days, marked by special high tides at the two equinoxes.

Q. How many tides are there in the lunar month?

A. Fifty-seven every lunation. The lunar tide being much greater than the solar, gives character to the whole movement, and happens 49ᵐ later every day. The tides are lowest at the first and third quarters of the lunar month, and *highest thirty-six hours after new and*

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full moon (when the full force of the solar tide is combined with that of the lunar) and reach special elevation twice a year, when the sun is on the equator, at the equinoxes.

Q. Did the equinoctial spring tides coincide with the day of our Lord's resurrection, Mar. 20, A.D. 29?

A. They did. The day of Crucifixion, Friday, Mar. 18, A.D. 29, fell on the 14th of Nisan; the hour of full moon was 9 p.m. on the evening of that day; and the equinoctial spring tides coincided with Sunday, Mar. 20, the day of our Lord's resurrection.

Q. Can the 360 tides from equinox to equinox be traced in the Jewish calendar interval extending from the 1st of Nisan to the 10th of Tisri?

A. Yes, distinctly. Take the year 1863, in which the 1st Nisan fell on Mar. 21, and the 10th Tisri (day of atonement) on Sept. 23. These were the actual days that year of the vernal and autumnal equinoxes. On the 21st of March, the morning and afternoon tides at London Bridge were at $3^h\ 4^m$ a.m., and $3^h\ 23^m$ p.m. Reckon from these, or add to these 360 tides, and you will find them terminate with the two diurnal tides of Sept. 23, which occurred at $9^h\ 57^m$ a.m., and $10^h\ 40^m$ p.m.

Q. Do your Tables enable one to trace the tides all along for the last 3,500 years.

A. The Tables give the time of true new moon for 3,500 years, and as the 57 tides every month depend upon the date of new moon the Tables afford a ready method of fixing within certain limits the ebb and flow of the tidal wave throughout the whole of that long period.

Q. Can you trace any adjustment of the revolution of the equinoxes to the Jewish Jubilee period?

A. Yes. The 49 years' Jubilee period was a lunar cycle. Forty-nine tropical years are $17{,}896{\cdot}86^d$, and 606 lunations are $17{,}895{\cdot}53^d$; the difference between the two, or error of the cycle $1{\cdot}33^d$, amounts to one lunation in 22 Jubilees, or 1,078 years. This Jubilee cycle just equals half a sign of precession, or half a month of the great year of the revolution of the equinoxes. In two such periods, or 2,156 years, the place of the sun at the vernal equinox recedes an entire sign; and in 12 such completes its revolution, $2{,}156 \times 12 = 25{,}872$ years; period of precession assigned by Herschel 25,870 years. The measure of the sidereal year, which I have given on page 381, 365·25635, or 365 days, 6 hours, 9 min., 9 seconds, is closely correct, and is derived from this 1,078 years Jubilee cycle, regarded as equivalent to 15° of precession, or half a sign. 1,078 sidereal years exceed 1,078 tropical by 14 days.

Q. What does the luni-solar epact amount to in the 1,078 years Jubilee cycle?

A. 1,078 solar years exceed 1,078 lunar by 397 lunations, or 33 lunar years, 1 month (360+30+7 months); hence 1,078 solar years are 1,111 lunar years+1 month (1,000+100+10+1 year+1 month), a striking instance of the combination, which I pointed out in redemption chronology, of larger and lesser periods having a common ratio. The two cycles 1,078 and 2,300 are closely connected as corresponding cycles of

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the two epacts. Each has an epact of 33 years, the one luni-solar, and the other calendar; and the difference between the two cycles, or 1,222 years, measures 1,260 lunar years. Thus in the 2,300 years, from B.C. 457 to 1844, 1,078 years extended to the Hegira era, and 1,222 solar, or 1,260 lunar, thence to the year 1844.

IV. Relation of the Traditional Dates of the Crucifixion and Resurrection of our Lord, March 18 and 20, A.D 29, to the Jewish and Christian Calendars.

Q. Is not the traditional date of the Passover, March 18, A.D. 29, too early as falling before the Vernal Equinox?

A. It is true that the modern Jewish Calendar which is based on the 19 years Metonic cycle places the Passover after the Vernal Equinox, but that cycle has an error of 11 days in 2,300 years, and half a month in 31 centuries, and therefore could not have regulated the Jewish Calendar all along from the commencement. According to the Jewish Calendar the present year, 1896, is the 13th year of the 298th cycle of 19 years; but the reckoning is absurd, as in 298 cycles the error of the 19 years cycle is no less than 25 days!

235 lunations . . .	$6939^{d}\cdot68865$
19 Trop. years . . .	$6939\cdot60256$
Difference . .	$\cdot08609 \times 298 = 25^{d}\cdot65482.$

The present Jewish Calendar is built on the manifestly erroneous calculations of Rab. Ada A.D. 188. In the introduction to his "Jewish Calendar for 64 years" E. H. Lindo says of Rab. Ada, "*his calculations are those we are guided by*, and the experience of over seventeen centuries has proved their correctness, not the smallest error having been discovered in that period of time." As Rab. Ada made 235 lunations *exactly equal* 19 *tropical years*, his system was marred by the error of the Metonic cycle, and involved the serious discord of months and equinoxes in long periods. What the method was which the Jews employed in the time of our Lord to regulate their Calendar we do not know. In his "Epitome of the Chronology of Rome," p. 326, Clinton says, "We do not know what their method of calculation was at the time of the Christian era. But we are not to apply to their time the modern Jewish Calendar or the cycle of 19 years; nor are we to rely upon the accounts of Maimonides writing in the twelfth century, or of other Rabbinical doctors, for the practice of the Jews in the time of CHRIST; nor can it be determined from their computations in what year of that period the Paschal sacrifice fell upon the sixth day of the week. They used a cycle of 84 years, which was by no means exact; and *sometimes* (*as we learn from Epiphanius and from the author of a Paschal Homily in the works of Chrysostom*) *they observed the Passover before the equinox*."

"If the first Passover after the Baptism was in the spring of A.D. 26, the Crucifixion and the fourth Passover are determined to the year 29;

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and it remains to enquire whether the Passover of that year was in March or April. The full moon of March is fixed by Mr. Cunninghame's calculation to Friday, March 18, at 9^h 16^m p.m. If that was the Paschal moon, we obtain these dates: the 14th of Nisan at 6 p.m., March 18, 3^h 16^m before the full moon; and the Paschal Lamb was slain at 3^h p.m. of Friday, March 18, 6^h 16^m before the full moon. *It is no insurmountable objection that this was three days before the Equinox;*[1] for we have seen from the preceding testimonies that a Jewish Passover was sometimes celebrated before the Equinox, and, as Mr. Benson properly remarks, in the Mosaic law there is no injunction which refers to the Equinox at all. It has been objected, however, that March 18 is inadmissible, because if the 16th of Nisan is at March 20, the corn would not be ripe for an offering. But the Law seems only to require that when the sheaf was offered on the 16th of Nisan the barley should be in the ear. That it could be ripe enough to be reaped and used as food at that early season is scarcely credible. If the Passover had been delayed until ripeness in this latter sense had been attained, not only a full moon at the Equinox would have been excluded, but many vernal full moons after the Equinox; and it could hardly happen that the Passover could be celebrated at a vernal full moon at all."

It should be noticed that in the Canon of S. Hippolytus, which is given in Vol. II. p. 56, the earliest Paschal limit is the 18th of March (two days before the then existing Vernal Equinox), the traditional Latin date of the Crucifixion. It is a deeply interesting fact that the entire *ecclesiastical Christian Calendar is built upon the place of Easter Sunday*, and the date of Easter Sunday in its turn regulated by the Vernal Equinox. The rule instituted by the Council of Nice (A.D. 325) was that Easter Sunday should be the first Sunday following the first full moon after the Vernal Equinox, and at the date of the Council the Equinox fell on March 20, which was the anniversary of the day of Christ's resurrection (see Vol. II., Tables, for A.D. 325). March 21 was fixed on by the Council as the Vernal Equinox day (being that year Sunday), and hence the Ecclesiastical Calendar was built on the Julian date, March 21. Without recognising the fact the Christian Church has been commemorating all along in her Calendar arrangements the true date of the Resurrection. This result could not have been attained *had not the Passover in A.D. 29 fallen before the Vernal Equinox.* The anticipation (or error) of the Julian Calendar (1 day in 129 years), caused the Julian Equinox to fall back two days between A.D. 29 and A.D. 325, or from March 22 to March 20, the anniversary of the day of our Lord's Resurrection.

V. Geological and Chronological Relations of the Revolution of the Solar Perigee.

Q. Are the Prophetic Times adjusted to the movement of the Solar Perigee?

[1] Really four days.

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A. Yes. The Perigee advances 40 days in the Prophetic period of 2,300 years, and 31½ days, or $\frac{1}{12}$ of its entire revolution in the prophetic periods 490 and 1,260 years taken together (490 + 1260 = 1750 × 12 = 21000).

Q. Are the Times of the four empires, including those of Papal Rome, reckoned from the Nabonassar era adjusted to the Perigee revolution?

A. They are manifestly so. The coincidence of the Perigee with the winter solstice A.D. 1268 took place at the exact culmination of Papal power (see "Approaching End," Calendar). From Nabonassar era to A.D. 1268–9 was 2,015 years. I have shown that the intervals from the Nabonassar era to the Crucifixion of CHRIST, and that to the culmination of the power of the Papal Anti-Christ are analogous periods as measured by the revolutions of Venus. The former was 1,260 Equinoctial periods of Venus, the latter 1,260 Synodic periods of the same planet.

Q. When you say that the Perigee advances 40 days in 2,300 years what do you mean?

A. Through the slow progressive movement of the direction of the major axis of the earth's orbit with reference to the line of the Equinoxes the position of the Perigee advances one day in 57½ years (21,000 days). In the year 1844 the longitude of the Perigee was 9° 10° 14" and agreed with the mean longitude of the sun on the 1st of January. The 40 days advance of the Perigee during the 2,300 years from B.C. 457 to A.D. 1844 is shown in the following table :—

40 DAYS ADVANCE OF THE SOLAR PERIGEE B.C. 457—A.D. 1844.
(DATES IN NEW STYLE.)

	B.C.	Place of Perigee.		A.D.	Place of Perigee.
	457	Nov. 22	20	694	Dec. 12
1	399	,, 23	21	751	,, 13
2	342	,, 24	22	809	,, 14
3	284	,, 25	23	866	,, 15
4	227	,, 26	24	924	,, 16
5	169	,, 27	25	981	,, 17
6	112	,, 28	26	1039	,, 18
7	54	,, 29	27	1096	,, 19
	A.D.		28	1154	,, 20
8	4	,, 30	29	1211	,, 21
9	61	Dec. 1	30	1269	,, 22
10	119	,, 2	31	1326	,, 23
11	176	,, 3	32	1384	,, 24
12	234	,, 4	33	1441	,, 25
13	291	,, 5	34	1499	,, 26
14	349	,, 6	35	1556	,, 27
15	406	,, 7	36	1614	,, 28
16	464	,, 8	37	1671	,, 29
17	521	,, 9	38	1729	,, 30
18	759	,, 10	39	1786	,, 31
19	636	,, 11	40	1844	Jan. 1

Q. Has any astronomer ever proposed to treat the date of the coincidence of the Solar Perigee with the Winter Solstice in the middle of the 13th century as a universal epoch?

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A. La Place made that proposal, and that the Vernal Equinox of the year A.D. 1250 (bisecting the century) should be reckoned the first day of the first year.

Q. What are the cardinal dates in the Solar Perigee revolution?

A. They are given in "Chambers' Astronomy" as :—

I.	B.C. 3958.	Coincidence of the Perigee with			Autumnal Equinox.
II.	A.D. 1267.	"	"	"	Winter Solstice.
III.	" 6493.	"	"	"	Vernal Equinox.
IV.	" 11719.	"	"	"	Summer Solstice.

In A.D. 16945 the revolution will be completed by the return of the Perigee to the Equinox of Spring.

Q. Is the 21,000 years revolution of the Solar Perigee of equal importance with the 25,870 years revolution of the Equinoxes?

A. Of far greater practical importance. The retrograde movement of the Equinoxes is certainly important as affecting the apparent place not only of the sun in the signs of the Zodiac, but of every star in the heavens, but it has no practical value beyond a chronological one; whereas the revolution of the Solar Perigee controls a vast cycle of the seasons which has exercised immense influence in past ages on the climate of the globe.

Q. How comes the Solar Perigee revolution to be so influential on climate?

A. The sun is 3,000,000 miles nearer the earth at Perigee than at Apogee. The eccentricity of the earth's orbit is slowly decreasing; 850,000 years ago, as computed by Mr. Croll, the difference between perihelion and aphelion distance was 13,648,000 miles, and the winters exceeded the summers in length by 34 days. During the glacial period, when the north winter solstice was in aphelion, the winter measured 200·69^{d}., and the summer 164·55^{d}., or 36 days excess of winter, and the difference between aphelion and perihelion distance was no less than 14,212,000 miles. (Croll, "Climate and Time," p. 358—Diagram, frontispiece.) ?

Q. What is the present disproportion between summer and winter?

A. The summer half of the year is 8 days longer than the winter half. In 1850 the interval from the Vernal to the Autumnal Equinox was 186 days 11 hours; while the interval from the Autumnal Equinox to the Vernal Equinox (the winter half of the year) measured 178 days 19 hours. In the year A.D. 1268, when the Perigee coincided with the winter solstice the difference was just 8 days.

Q. When did the Solar Perigee first fall on the first day of the year (Jan. 1) of the Julian Calendar?

A. The first accurate coincidence took place in the year 1844.

1844. Jan. 1. Mean Longitude of the sun 9^{s} 10° 14′ 29″.
" " Longitude of the Sun's Perigee 9^{s} 10° 14′ 27″.

Q. Is not 1844 the starting-point from which the Vernal Equinoxes and new moons in your Tables are calculated?

A. Yes. It is needful in calculating the tables to start with some

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particular year. This year was chosen as the 1,260th of the Mohammedan era; as 2,300 years from B.C. 457, the Ezra *terminus a quo* of the "70 weeks"; as a year in which the first of Nisan and 10th of Tisri (Day of Atonement) fell in the Jewish Calendar on March 21 and September 23; as a year in which the lunar phasis of the month of Nisan coincided with the Vernal Equinox; and as a year marked historically by the compulsory issue of a Mohammedan decree of religious toleration. The law by which capital punishment used to be inflicted on a Mohammedan embracing another religion was abrogated in 1844. ("*Her Majesty's Government require the Porte to abandon once for all so revolting a principle.*"—Foreign Office despatch, Jan. 16, 1844. See "Approaching End of the Age," pp. 434, 435.) The coincidence of the Perigee with the opening day of the reformed Julian Calendar year is a feature of A.D. 1844.

Q. Is 1844 linked by the Prophetic Times with the Nabonassar starting-point of the four empires?

A. From the Nabonassar era 1,260 lunar years extend to the fall of the Western Empire of Rome, A.D. 476; from thence 150 lunar years extend to the Hegira era, the starting-point of the Mohammedan Calendar; and from the Hegira era 1,260 lunar years to 1844; thus from the Nabonassar era to 1844 the interval is 1,335 lunar years doubled.

VI. Derivation of Astronomic Periods from the Prophetic Times.

Q. How are the astronomic measures of solar years, lunar months, and planetary periods given on p. 381 derived from the Prophetic Times?

A. (1) *Solar years.* The derivation of the measures of the *Tropical* and *Anomalistic* years from the 1,040 and 2,300 years cycles is shown, Vol. II., p. 6. The *Sidereal* year is derived from 1,078 years Jubilee cycle (epact cycle analogous to 2,300 years) $1{,}078^y = 15^\circ$ or half a sign of precession $\times 24 = 25{,}872^y \div 360^\circ = 50{\cdot}0927''$ annual precession. Tropical year $\div 25{,}872 = 20^m 19^s{\cdot}73$ which, added to Tropical year = Sidereal.

(2) *Lunar months.* For the derivation of the *Synodic month* from the 1,040 years Daniel cycle, and the *Anomalistic month* from the 2,300 years prophetic period, see Vol. II., p. 6. The *Tropical month* is derived from 1,040 years Daniel cycle; $1{,}040^y = 12{,}863$ lunations $+ 1{,}040 = 13{,}903$; 12,863 lunations $= 379{,}852^d \div 13{,}903 = 27^d\ 7^h\ 43^m\ 4^s$. The *Sidereal month* exceeds the tropical by precession which has been previously obtained. In 1,040 years there are 13,903 tropical months; adding for precession Sidereal month $= 27{\cdot}32166$. The *Nodical month* is derived from the prophetic 391 years' lunar and eclipse cycle; $(360^y + 30^y + 1^y) = 5{,}248$ Nodical months. 391 tropical years $= 142{,}809^d{\cdot}71584 \div 5{,}248 = 27^d{\cdot}21221$, the Nodical month.

(3) *Planetary periods.* The derivation of these from the Prophetic Times has already been given as that of Mercury from "seven times"

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solar (2,520 solar years), and Mars and Saturn from "seven times" lunar (2,520 years), etc., pp. 356–370. Synodic, equinoctial, and sidereal periods are so related that any one of these can be derived from the others. From the synodic period the equinoctial period can be derived by the formula for the inferior planets $\frac{1}{T}=\frac{1}{E}-\frac{1}{P}$ whence $\frac{1}{P}=\frac{1}{E}+\frac{1}{T}$ and for the superior planets $\frac{1}{T}=\frac{1}{E}-\frac{1}{P}$ whence $\frac{1}{P}=\frac{1}{E}-\frac{1}{T}$. In each case P can be found, E and T being known. It is admitted by astronomers that "the tropical periods may be deduced from the sidereal by deducting the times which the several planets require respectively for the description of an arc of longitude equal to the precession."—Woodhouse, "Astronomy," Vol. II., p. 620.

VII. Measures of the Jewish and Christian Dispensations and Nearness of the End of the Age.

Q. Have the two epact scales prominent in the Prophetic periods any wider connection with Jewish and Christian Times viewed as a whole?

A. If the Jewish dispensation from Abraham to Christ was about 21 centuries, and the Christian dispensation from the foundation of the Christian Church to the end of the age as indicated by the Prophetic Times is about 19 centuries, both together will be about 40 centuries; and the 19 centuries of the Christian dispensation will bear the same ratio to the 40 centuries of the Judeo-Christian dispensation that the 33 years average life period bears to the 70 years normal life period. In other words the epact ratio of 5·242 : 10·875. This ratio will make the epacts in the two periods analogous.

Q. Does the lunar epact of the 4,000 years period, which includes both the Jewish and Christian dispensations, connect it with typical Old Testament Times?

A. Yes, with the 120 years period during which the Ark was building, and the 120 years life of Moses. The first of these terminated with the Flood, and the second with the entrance of Israel into the promised land. On the luni-solar epact scale 4,000 years are simply an enlargement of 120 years. The luni-solar epact in 4,000 years is 120 years. The epact in 3,910 years is 120 lunar years, while in 4,030 years it is 120 solar years. The conclusion indicated by these measures is that the Jewish and Christian dispensations taken together form a period of Divine long-suffering, during which the Ark of Salvation is building, and being filled; and during which, to change the figure, the Israel of God is called out of Egypt, and led through the wilderness to the promised land. The position now reached by the Church is analogous with that of Moses at the end of his 120 years life period, or that of Israel at the close of the forty years wilderness journey, when they were on the eve of entering into the promised inheritance.

Q. Have the Prophetic Times any later termination than that you have already indicated?

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A. If the 1,260, 1,290, and 1,335 years of Daniel xii. be reckoned in solar measure from A.D. 610, the year of the death of Phocas, they terminate in the years 1870, 1900, and 1945; and it is remarkable that 2,300 solar years from the birth of Alexander the Great, and 2,300 calendar years from his death, both terminate in A.D. 1945; and also 1,260 Synodic periods of Mars reckoned from the Nabonassar era. The 2,300 years of prophecy commence with the times of Xerxes and Alexander the Great, Daniel viii. 2, 5, 13.

Q. Why have you not given prominence to the date A.D. 1945?

A. Because it lies beyond the termination of "seven times" (or 2,520 years) reckoned from the destruction of the Temple by Nebuchadnezzar, B.C. 587, which seems the proper full commencement of the "Times of the Gentiles." A.D. 1945 may possibly prove to be the date of some important event connected with the returning glory of Israel (Ezek. xliii. 4, 5), though A.D. 1923–4, or "seven times" from the Ezekiel starting point (Jehoiachin's captivity) seems to me a more probable Jewish crisis date. While stating the facts as to the course of Prophetic, Historic, and Astronomic Times, I have carefully avoided attempting to anticipate or predict the "day or hour" of the Coming of Christ, *which I hold to be purposely concealed.* Even if we knew the exact years from which all the Prophetic periods should be reckoned, it would remain doubtful in what form of year they should be calculated, Solar, Calendar, or Lunar, with reference to the supreme date. The divergencies between these three forms give rise to the various epacts. The evident uncertainty in which we have been placed in these matters should lead us to preserve an attitude of constant watchfulness.

Q. Is there any considerable branch of the adjustment of natural to revealed chronology which you have omitted?

A. I have omitted the whole subject of the relation of eclipse cycles to the Prophetic Times. I regard the 1,260 and 666 Prophetic periods as the 37 years' captivity of Jehoiachin and the 70 years' captivity of Judah in Babylon, enlarged on the 18 years eclipse cycle scale in antitypical Babylonish history. To treat the relation of eclipse chronology to the Prophetic Times would require much more space than can be given here to such questions. I can only indicate the fact that the chronology of Babylon and Egypt is built on the 18 years eclipse cycle (see tables in Ptolemy's "Almagest"), and that $18 \times 37 = 666$, and $18 \times 70 = 1{,}260$. In 37 cycles a solar eclipse reaches *centrality*, while 70 to 74 cycles (1,262–1,335 years) form common and characteristic periods comprising *the entire history of a solar eclipse* from its first entrance upon the earth at the north or south pole, until it passes off at the opposite pole. As to the historic application of these periods, a glance at the calendar of the "Times of the Gentiles" in my work, "The Approaching End of the Age," will show that while 1,260 years measured the interval from Justinian's decree connected with the commencement of Papal power to its fall at the French Revolution in A.D. 1793, 666 years extend from the Justinian starting-point to the accession of Innocent III., A.D. 1198, a

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date which certainly marks a central and important era in the development of the self-exalting and persecuting Papal power. From the most central Papal date, A.D. 1268, 666 years extend on the other hand to A.D. 1934.

Q. Does the addition of the 1,000 years of the fifth kingdom (in its introductory form) to the nearly 27 centuries of the previous four kingdoms form a measure analogous with any typical Old Testament period?

A. It does. The 27 centuries of the four kingdoms, together with the 1,000 years of the Millennium, make 37 centuries, in which the luni-solar epact is 110 years; indicating that this great period of the five kingdoms of prophecy is an enlargement on the leading epact scale of the 110 years life period of Joseph and Joshua, who were eminent types of CHRIST in His conquering and kingly character.

Q. What is your last word as to these chronological questions?

A. Rise above details. Take a broad view of the course of history and prophecy. Many of the chronological facts we have mentioned are of secondary importance, and while useful to persons who are searching deeply into prophetic questions, may be ignored by those who only desire to know the leading elements of the subject. Grasp the dicentric character of history as connected with the two great Advents. Distinguish the Temple prophecies linked with the first Advent from the Throne prophecies connected with the second. Recognise clearly the five kingdoms of prophecy and history. Note the identity of the four Gentile kingdoms of prophecy with the four kingdoms of Ptolemy's Canon, and the important chronological results obtained by measuring the course of these kingdoms, and the great events of Christian history, from Ptolemy's starting-point, the era of Nabonassar. Consider the place we have now reached as close to the prophetic termination of the fourth kingdom, and near the commencement of the fifth kingdom in its Millennial form. Study the prophecies relating to the solemn judgments which terminate the four Gentile Kingdoms, and introduce the Millennial reign of CHRIST and His saints. Remember the often repeated warning, "*Behold, I come as a thief.*" Make no attempt to fix on the day or hour of the Second Advent. Be always ready for that supreme event, "looking for the blessed hope and appearing of the glory of our great God and Saviour Jesus Christ; who gave Himself for us that He might redeem us from all iniquity, and purify unto Himself a people for His own possession, zealous of good works" (Tit. ii. 13, 14, R.V.). And, lastly, hold fast the truth that Creation is Centred in Christ, and that His coming kingdom will be the manifestation of the glorious reality, so imperfectly apprehended at present, that "in Him all things consist."

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INDEX.

A.

Abbé Migné, xiii.
Adjustment, law of, 166.
— moral, first in importance, 166.
— of lower kingdoms to higher, 173.
— of physical to mental and moral, 175.
— law of, its higher forms, 175.
— law of, in nature and revelation, 440.
Affinity, chemical, a law of weight, 109.
Agassiz, 104, 116.
Ages to come, 179, 185.
Ages, length of the geologic, 184.
Age of the earth, 185.
— palæozoic, 192.
— secondary, 192.
— tertiary, 192.
— modern, 192.
— silurian, 202.
Agnosticism, 6.
Alexander the Great, 235.
Alison, 237.
Almagest, table of astronomical observations contained in Ptolemy's Almagest, 374.
America, its discovery by Columbus, 254.
Analogy, definition and use, 98.
— suitable to the progressive discovery of truth, 119.
— in nature, a universal law, 100, 439.
— of the natural and the revealed, 131, 440.
— of physical order in nature, to mental and moral, 131.
— in the structure of plants, 103.
— recognised in poetic language, 132.
— in number, 106.
— exhibited in the language of Scripture, 132.
— a law controlling vital and planetary periods, 112.
— of the natural to the revealed in the absence on the surface of systematic arrangement, 134.
Analogy in the association of clearness and obscurity, 135.
— of religion to constitution and course of nature (Bishop Butler), 146, 149.
— between natural and spiritual worlds, summary of, 162.
— summary of the law of, 117, 165
Analogies between man and lower animals, 116.
— convergence of, 123.
Analogy between lower kingdoms and higher, 114.
— between mineral and vegetable worlds, 114.
— vegetable and animal kingdoms, 116.
— in revelation, 118.
Analogous changes accomplished in analogous times, 443.
Angels, fallen, 388, 433.
— unfallen, ministry to man, 400.
— connected with work of Redemption, 400–8, 451.
Angelic prophecy, 407.
Anglo-Saxon race, its debt to geology, 198.
Animals, nervous centralization, 72.
— lower races subserve higher, 80.
Anno Domini, 241.
Antiochus Epiphanes, 29.
Apocalypse, Church's history sketched in, 129.
Approaching end of the age, xxxi.
Archetypal idea manifested long prior to the existence of its exemplification (Owen), 116.
Archetype, the human, 116.
— Christ the Great, 123.
Archetypes of the natural order contained in the revealed, 131.
Archæological discoveries confirmatory of Scripture, xxviii.
Argyle, reign of law, 134.
— unity of nature, 175.
Argelander's survey of Northern Hemisphere, 410.
Aristotle on Monotheism, 8.
— moral law, 16.

Digitized by Google

Armenian massacres, 493.
Articulata, 73, 105, 111.
Astronomic tables published with this book, xxxii.
Astronomical measures derived from prophetic times, xxxi–xxxvi, 381.
Astronomy, a witness to revelation, xxxiv, xxxv.
— a new witness to inspiration, xxix.
Astruc, xxvi.
Atheism, 5.
Atlantic ooze, 419.
Atonement, prepared from the foundation of the world, 198.
Atoms, characterized by numerical types, 107.
— ruled by fixed ratios of weight, 108.
— their power and character, 187.
Augustine, 250.
— conversion of, 423.
Average human life 33 years, 446.
Axis in plants, 72.
Azoic ages, 190.

B.

Babylon, 46.
Babylon, typical and antitypical, 244.
Bacon, Lord, 45, 50, 468.
Balfour, Foundation of belief, xv.
Bampton Lectures, 91.
Baur, concession of early date for Pauline Epistles, xxiii, xxv.
Belief in God a basis of scientific discovery, 3.
Bernard, Rev. T. D., on the progress of doctrine in the New Testament, 91.
Bible, the claim of the, 24–27.
— its method and authors, 25–27, 82, 118, 119.
— its twofold evidence, 27.
— unity of its theme, 84.
Bios cycle, 340.
Bio-genesis (Tyndall), 115.
Birks, Prof., 38.
— on the Prophetic Times, xxxviii.
— notice of De Cheseaux, 445.
Body the temple of the soul, 76.
Botta, xxix.
Brainerd, conversion of, 425.
Bride of the Lamb, 500.
Brougham, Lord, on Sir Isaac Newton, 68, 69.
Buchanan, Dr., 118.
Buckland, Bridgwater Treatise, 190.
Butler, Bishop, xiii, 81.
— analogy of Religion to the constitution and course of nature, 145, 149.

C.

Cæsar, Cæsars, 207, 210, 246.
Calculating machine, 420.
Calendar, foundation for a correct calendar in 2,300 years cycle, 343.
— Jewish, 514.
Calvin's "Institutes," 58.
Cambridge Museum, U. States, 204.
Canon of Ptolemy, 297.
— — a running comment upon Daniel ii., 237.
Carboniferous era, 203.
Carlyle, 237, 253, 254.
Carpenter, 115.
Causation, Dr. Romanes' argument from, 462.
Causes sometimes follow effects, 200.
Centralization, law of, xxxvii.
— in the natural and revealed, 56.
— in the relation of the natural to the revealed, 98.
— in nature, 56.
— in the organic world, 70.
— in the vegetable world, 71.
— in the animal world, 72.
— in the mineral world, 70.
— in the moral world, 75.
— in revelation, 84.
— a law of society, 76.
— its central principle, 77.
— in nature and in the moral world, 437.
Ceremonial types, 120.
Charlemagne, 208.
Chemical World, adjustment in elements, 169.
Cheseaux, M. de, discoveries of, xxx, xxxiv, 324, 444, 445.
Christ the Word, 51, 495.
— Creator of all things, 51.
— Agent of God the Father, 51.
— upholds and unites all things, 52.
— His atonement and reconciling work, 52, 53.
— His miracles, 33.
— His character, 32, 37, 216, 218.
— His perfect fulfilment of the moral law, 82.
— manifested to destroy the works of the devil, 387.
— His coming kingdom, 53, 90–94, 209, 248, 495.
— chronology of His kingdom, 491.
— as Mediator, 87.
— His person, His body, His cross, 499.
— His infinite exaltation, 415.
— the centre of revelation, 85.

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Christ, His new commandment, precept, example, motive, 96.
— the great Archetype, 123.
— types relating to the person of, 123.
— types relating to the offices of, 124.
— types relating to the work of, 124.
— His place at the meeting-point of history, 241, 245, 246.
— the key to history, 249.
— convergence of types and prophecies in, 125.
— His history prototype of history of regenerate, 126.
— the centre of both worlds, 163.
— the source of life, 191.
— His Advent a new era, 213.
— First of a new humanity, 213.
— His life strictly historical, 214.
— effects of His Advent, 215.
— the new man, 216.
— His greatness not national, 218.
— childhood, youth, and history, 221–223.
— the greatness of His claims, 224, 225.
— Archetype of human nature, 228.
— the Vine, the Corner Stone, 93.
— the True Vine, 229.
— His second Advent, 94, 494.
— revealed in His Church, 497.
— kingdom the goal of progressive social co-ordination, 490.
Christian Consciousness, 421.
— — and experience of Augustine, Luther, Brainerd, Weitbrecht, Pascal, Edwards, and Simeon, 423–7.
— — an intuition, 428.
— — dependent on external revelation, 428.
— — threefold division, 429.
— — an indestructible power, 453.
— Experience, confirmatory of revelation, 43.
Christianity and Judaism, contrast between, 155.
— is Highest Love revealed, 96.
— its work and effects, 451.
— superiority to Judaism, 35.
— — to Philosophy, 36.
— the religion of Reconciliation, 86.
Christo-centric character of the natural and revealed, 467.
— principle, its application, xxxix.
— — applied to false religions, 481.
— — — false science and philosophy, 483–5.
— — — individual spiritual life, 487.
— — — the Christian Church, 487.
— — — the future universal kingdom, 488.
Chronology, central elements of revealed, 446.
Church, formation and growth traced in the Acts and Epistles, 91.
— history sketched in Apocalypse, 129.
— Christian, 242, 246.
— her future glory, 501.
Cicero, 17, 23.
— his opinions on Monotheism, 8.
City of the Seven Hills, xxxi.
Coal, 182, 197.
Coleridge, 9, 117, 152.
Colloqua Peripatetica, Dr. Duncan, 152.
Columbus, guided by analogy, 101.
Complexity in physical and spiritual worlds, 157.
Conflict, a law of both worlds, 158, 163.
Conder, xxix.
Confucius, 17.
Conquests of the Cross, 44.
Conscience, 11, 15, 18, 81.
— its cause must be moral, 12.
— Bishop Butler on, 81.
Consequences often precede causes, 200.
Conspectus of revealed times, 284.
Constantine, 247.
Consular date of our Lord's Passion, 301.
Continuity of natural and revealed, 82.
Copernicus, 3, xxxix, 455, 479.
— guided by analogy, 101.
— his heliocentric theory, 57.
— "*de Revolutionibus Orbium Cælestium*," 58.
Corals, 72, 80.
Cotyledon, 103.
Creation centred in Christ, the teaching of Scripture, 49–55.
— various views of origin, 4.
— a gradual process, 193.
— and Redemption parallel in method, 121.
Criticism, Biblical, reactionary movement, xxvi.
— modern, xxii.
Cromwell, 253.
Cross, centre of convergence and divergence, 432.
Crystallization, arborescent, 114.
— law of, 70.
Crystals, 110.
— six systems of classification, 110.
— and plant life, contrasts, 114.
Cunninghame, Wm., investigations in prophetic chronology, 326.
— — article on M. de Cheseaux, 445.

Digitized by Google

Cuvier, 104, 191.
— on the harmonies of organized forms, 171.

D.

Daniel, authenticity of its date, xxxvi.
— his prophetic visions, 234.
Darwin, Charles, xx, 188.
Darwinism, 459.
Dawson, Sir W., 459.
Death, the wages of sin, 199.
— its reign merciful, 201, 202.
Devonian Era, 203.
De Wette, xxvi.
Dick, Dr. Thos., astronomer, 210.
Dicotyledons, 103.
Divine programme of world's history, xxxi.
Downing, Dr. A. M., xxxiv.
Draper, Prof, on conflict between Religion and Science, 454, 459, 468.
Dreyer, Dr., F.R.A.S., confirmation of Astronomical Tables, xxxiii.
Driver, Canon, "Introduction to Old Testament," xxvii.
Drummond, Prof., "Ascent of Man," xix.
— "Natural Law in the Spiritual World," 466, 467.
Dual centralization, law of, 73.
— — in nature and history, 248.
Duncan, Dr. John, 50.

E.

Earth, 450.
— antiquity, 184.
— age and origin unknown, 185–189.
— crust adapted to meet needs of mankind, 198.
— crust, formation, 185.
— crust one great cemetery, 199.
— worms, 80.
Echinæ, 105, 111.
Eclipse chronology, 522.
Edersheim, xxiv.
Edict of Nantes; its revocation by Louis XIV., 253.
Edwards, Jonathan, 96, 256, 425.
— — on the history of redemption, 86, 250.
Effect centred in cause, 471.
Effects preceding causes, 200.
Egypt, 46.
"End, the," 54. 491.
Endogens, 104.
England, wealth of geologic structure, 198.
Epact chronology, 447.
— — adjusted to vital and historic times, 337.
Epictetus, 16, 18.
Era of Nabonassar, 1,260 years, 237.
Euripides, 18.
Evangelization of the world, 255.
Evidences of Christianity cumulative, 437.
Evolution, 159, 191.
— new theories mutually destructive, xiv.
— insufficient to account for origin of the world, xvi.
Evolutionists, 187.
— extreme section, xiv.
Ewald, xxvi.
Extension and thought, two worlds, 75.
Exogens, 111.

F.

Faber, 236.
Fairbairn on religion in human nature, 422.
— "Studies in the Philosophy of Religion and History," 454.
— "Christ in Modern Theology," 225.
Faith and free thought, alternate action, xiii.
— and reason, xxxix, 50.
— and philosophy, 50.
Faraday, 3. 188.
Farrar, xxiv.
Felspar, 181.
Fivefold and tenfold numbers, 266.
Flood, 209.
"Footprints of the Creator" (Hugh Miller), 177.
Fortnightly Review, Prof. Huxley in, xviii.
Fossil Ages, 185.
Foundation of Belief, Balfour, xv.
Four kingdoms, 234.
— empires, 238.
— empires overthrown by Christ, 251.
Fourfold numbers in Scripture, 260.
Franco-German War, xxx.
French Empire: its collapse, xxx.
— Revolution, 238, 254, 255.
Fossils, animal and plant, 80,000 species, 183.

G.

Galileo, 69.
Galvanic battery Torpedo fish, 188.
Geikie, "Life of Christ," xxiv.

Digitized by Google

Gemara, 35, 36.
Gentiles, their call, 33.
Geologic dispensations, 191.
Geology, definition, 178.
— its message, 420.
— history and prophecy three parts of one whole, 178–9, 239, 432, 474.
— on starting-point of life, 189.
— outline of its facts, 180.
— adjusted to Redemption, 441.
— foreshadows human history, 202.
— revealing past eternity, 184.
Gess, xxiv.
Gesta Christi, Gesta Dei, 45.
Globe, the, how much of it covered by ocean, 183.
God, 495.
— from everlasting, 185, 186.
— His preparation for humanity, 194.
— His thoughts not as ours, 208.
— His Fatherhood, 214.
— government of, 144.
— seen only by the pure in heart, 152.
— in the infinitely little as in the infinitely great, 452.
— omnipresent, 6.
— His existence and unity; opinions of Sophocles, Xenophon, Aristotle, Cicero, Plato, Seneca, Plutarch, 8.
— Nature's witness to, 3–12.
Godet's Biblical Studies, 128.
Goodness, the law of being, 15.
Gospels, a fifth deducible from Pauline Epistles, xxv.
— their translucency, 217.
Gospel, its power and triumphs, 385–6.
— Epitome of the teachings of Paul's Epistle to the Romans, 477.
Government of the world, its method, 460.
Graf, xxvi.
Granites, 181.
Gravitation, 11, 58, 67.
— A law of analogy, 106.
— its exact numerical ratio, 106.
— its parallel in the spiritual sphere, 137.
— prevalent in stellar systems, 66.
Gravimetric ratio, law of, 108, 109.
Greece, liberated from Turkey, 493.
Greek language, vehicle of the New Testament, 251.
Grotius, xiii.
Grimm, xxiv.
Great image, Nebuchadnezzar's dream (Dan. ii.), 448.
— — its life period, 448.

H.

Harmonization of religion and science, 454.
Harrison, Frederic, 7.
Haughton, "Three Kingdoms of Nature," 74.
Heat, present in the stars, 67.
— received by the earth at equator, 63.
Heliocentric principle, 56, 479, 480.
— — in revelation, 59.
— — in the Stellar system, 64.
Hercules, 13; *M. Herculis*, 411.
Hermon, 46.
Herschell, 168, 186.
Herschel, Sir John, "Natural Philosophy," 106.
Hines, xxix.
"Historic Introduction to New Testament," Dr. Salmon, xxv.
Historical types, 120.
History centred in Christ, 442.
— definition, 178.
— sacred, 178.
— fulfilling prophecy, 238.
— Christian and Jewish analogous, 243.
— its dicentric character, 248.
Hodge, foundation of saving faith, 431.
Homer, 16.
Holy Spirit of adoption and guidance, 429.
— — outpouring at Pentecost, 93.
Horeb, 46.
Huygens, 69.
Humanity, its failure, 212.
— its moral progress, 216.
Huxley, Professor T., xvi, xviii, 159.
— — "*An Apologetic Irenicon*," xviii.
— — significant admissions, 10.

I.

Ichthyosaurus, 206.
Incarnation, the, 150, 498.
— Christ, the Eternal Centre of Creation, as the personal manifestation of GOD, 495.
Incommensurateness of the Primary Terrestrial Time Units, 320.
Instinct, 117.
— in nature (Coleridge), 117.
Introduction to Old Testament, Canon Driver, xxvii.
Intuitional principle in natural and spiritual, 151.

Digitized by Google

Israel, typical character of history of, 119.
— and Judah, parallel to eastern and western Christendom, 244.
Israels, two, 129, 243, 244, 245.

J.

Jews, the, 24, 29.
— — their civil history, 29.
— — use of their dispersion, 251.
— — their religious history, 30.
— — their rejection, 33.
Jewish sacrifice lasted for 1,600 years, now ceased, 242.
— Feasts of Unleavened Bread and Tabernacles, 90.
— nation, its fall connected with Christ's first Advent, 241.
— restoration, 493.
— dispensation, its end, 252.
Jerusalem, its destruction, 242.
— The New, 500.
Jesus, *see* Christ.
"Jesus lives and dies like a God," Rousseau, 40.
John the Baptist, unlike Christ, 224.
Josephus, 241.
— on the Hebrew Scriptures, 24, 25.
Jubilee cycle, 515.
Judaism inferior to Christianity, 35.
— and Christianity, contrasted, 155.
— Necessary Foundation of Christianity, 250.
Jupiter periods adjusted to Bible times, 367, 450.

K.

Kant, 75.
Kelvin, Lord, xvii.
Kensington museum, 183.
Kepler, 3, 61, 68.
— religious faith, 455.
Kidd, Benjamin, xviii.
— on social evolution, 464.
Kingdom of God, 231, 239.
Koran, 17.
Kuenen, xxvi.

L.

Lagrange, 169.
Laing, on *Human origins*, 459.
Lalande, catalogue of stars, 410.
Lancet, The, 113.
Lardner, xiii.
Lasserre, xxiv.
Lavas, 181.
Law of Centralization, xxxvii.
— of weeks in relation to vital changes, 113.
— moral, broken and fulfilled, 451.
— without, and law within, 141.
— of chronological analogy, 270.
— of conscience, 81.
Laws of number, gravitation, light, sound, chemical combination, etc., 106.
— of Centralization, Subordination, Progress, Parentage, Retribution, Remedy, Mediation, Renovation and Conflict, 163.
Layard, xxix.
Laycock, Dr. Thomas, on periodic changes in human frame, 113.
Leathes, Stanley, D.D., "The Law in the Prophets," xxvii.
Lenormant, xxix.
Levitical calendar adjusted to natural times, 323.
— — adjustment of solar and lunar revolutions, xxxv.
— — corrected in prophetic times, xxxv.
"*Lex Mosaica*," Prof. Sayce, xxvi.
Lias, 182.
Lichens, 79.
Life, inferior forms subserve superior, 78.
— its commencement upon the globe, Cuvier, 191.
Light for the Last Days, xxxi.
— theory of light waves, Birks, 417.
Linnæus' classification of flowers, 110.
Littleton, Lord, on the conversion and apostleship of St. Paul, 43.
Longfellow's *Hyperion*, 132.
Love, imperishable, 97.
— the law of, 76.
Luthardt, xxiv.
Luther, 455.
— contemporary of Copernicus, 58.
— conversion of, 424.
Lynn, Mr. W. S., xxxiv.
— confirmation of tables, 420.

M.

Maimonides, 36.
Mammalia, 111.
Mammals, early specimens of gigantic size, 206.
Man, 80.
— a social being, 76.
— his moral nature, 209.
— archetype of the animal creation, 193.
— without God miserable, xxi.

Digitized by Google

Manou, 17.
Mars, adjustment to redemptive chronology, 364.
Marth, Mr. A., xxxiv.
Massacre of St. Bartholomew, 254.
Materialism at war with reason, 400-1.
McCausland on Pre-Adamic races, 459.
McCosh, 136, 160, 176.
— Harmonization of Religion and Science, 468.
— on Pantheism, 5.
— on Typical Forms, 74, 102, 111.
— "*The Supernatural in relation to the Natural*," 494.
Means centred in end, 473.
Mediatorial principle, the centre of theology, 85, 438.
— system, no idle theory, 433.
Medicinal drugs, 79.
Megalosaurus of Mesozoic era, 204.
Memphis, 46.
Men, how many killed in war, 211.
Menant, xxix.
Mencius, 17.
Mercury, 449.
— adjustment to redemptive chronology, 356.
Messianic cycle, 447.
— time system, 331.
Mesozoic era, 203.
Metals, distribution and value, 195.
Metamorphic rocks, 181, 189.
Metonic cycle, correction of, in 2,300 years, 339.
Microscope, revelations of, 419.
Milky Way, 412.
Mill, John Stuart, 216.
Millennium, 232, 523.
Miller, Hugh, 177.
Milton, 109.
Mineral types, 101.
Mineralogy and Crystallography, Tennant and Mitchell, 102.
Mind, ruled by moral law, 81.
Miracles, 227.
Miracles of Christ and His apostles, 33.
Mishna, 35, 36.
Missionary colleges of the author, xxxii.
Missionary effort, 255.
Missions, modern, a sign of the times, 494.
Missions of this century, 245.
Mohammed, 31, 34.
Mohammedan power, 252.
Molecular elements governed by law, 108.
Mollusca, 73, 105, 111.
Monocotyledons, 103.
Monod, Adolph, his last words, 96.
Monotheism, opinions of Sophocles, Xenophon, Aristotle, Cicero, Plato, Seneca, Plutarch, 8.
Moral adjustment of the revealed to the natural, 382.
— — general view of, 432.
— — its main proof the transforming power of the Gospel, 385.
— — the Cross its centre, 385.
— — the Spirit its means, 387.
— — its wider aspects, 387.
— and physical equally systematic, 144.
— instinct, 15, 16.
— law, 76, 82.
— — indestructible, 385.
— nature in man a new principle, 159.
— renovation, 44.
Morality cannot be built on evolution, xviii.
— no sanction for it in the ways of the Cosmos, 159.
Muller, John Von, Swiss historian, 249.

N.

Nabonassar era to the year of our Lord's Passion, 800 lunar years, 308.
— — to fall of W. Empire of Rome, 1,260 lunar years, 311.
— — four empires reckoned from it, 377.
Napoleon, 208, 210.
Nature, a harmoniously ordered whole, 3, 4.
— disorder in external, 21,
— silent on human destiny, 23.
— witness to God, 3-12.
— a temple, materials made ready before built, 109.
— inorganic, exquisitely symmetrical, 102.
— her types, principle of order, 102.
— and revelation, law of adjustment, 440.
— and Revelation, one scheme, 49.
— — two books by one hand, 49.
— her testimony misrepresented, 50.
— hierarchical character of her system, 77.
— inorganic subservient to organized, 78.
— vegetable subservient to animal, 79.
— "The great parable," 134, 440.
— and revelation alike in clearness and obscurity, 135.
— — revelation, analogous order, 136.
— — piecing records, 177.

Digitized by Google

Nature, hierarchical order, 136.
— — mono-centric order, 138.
— — prospective principle, 140.
— — progressive plan, 141.
— — series of dispensations, 141.
— — prophetic types, 142.
— — parental relation, 144.
— — control of inner law, 153.
— — palingenetic principle, 161.
— — identity of law, 162.
— its archetypes found in revelation, 163.
— adjusted to revelation, 166.
— adjustment in, 167.
— inorganic adjusted to organized, 170.
— its classes mutually adjusted, 173.
— her beginning lost in obscurity, 187.
— and the supernatural," Horace Bushnell, 201.
— is man her goal? 212.
Natural life system, balance of, 173.
Naturalism, xiv.
"Natural Law in the Spiritual World," Drummond, 466–7.
— religion, its failure, 21.
— selection, insufficient to account for design, xviii.
— — Spencer's view of, xvii.
— and spiritual world, one system, 83.
— supremacy of the second born, 230.
— times, their incommensurateness suited to measure redemption times, 445.
Naville, 75.
— rationality of nature, 11.
Neander, xxiv.
— "Planting of Christianity," 95.
Nebuchadnezzar, his prophetic dream, 234.
Nebulæ, distribution of, 414.
Nebular hypothesis, 189.
Nero, 5.
New England, 254.
— heavens and earth, 161.
— Testament, its Books and authors, 25.
— — prophecy, 33.
— narrative historical, xxiii.
— — its threefold doctrinal and historic division, 89.
Newton, Sir Isaac, 3, 64, 68, 69.
— — — guided by analogy, 101.
— — — "*Principia*," 58, 64, 456.
— — — Epitaph, 457.
Nicodemus, 27.
Nihilism, xv.
Nineteenth Century, xvii.
Nineveh, 46, 246.
Nitzsch, on the middle term of theology, 88.
Norris, xxix.
Number in inorganic nature, 106.
— in relation to the forms of crystals, 110.
— in the vegetable world, 110.
— in the mineral world, 110.
— typical, in the animal world, 111.
— in the Bible, 257.

O.

Oath of revealing angel, 290.
Observatory, a night visit, 409.
— a day visit, 415.
— visit to, xxx.
Object of this work, 49.
Oolites, 182.
Oppert, xxix.
Oppolzer's *Syzygien-Tafeln für den Mond*, xxxiii.
Order, universal, extending, to the microscopically minute, 108.
— of nature and revelation analogous, 136.
— eternal, reigning amid perpetual mutation, 147.
Organic beings, once non-existent, 190.
Organized structure and inorganic difference between (Carpenter), 115.
— bodies, adjustment of their parts, 170.
Organs of circulation, respiration, and reproduction common to vegetable and animal kingdoms, 116.
Outlines of astronomy (Herschell), 169.
Ovid, 17.
Owen, Professor, 116.

P.

Pagan witnesses to God and righteousness—Cicero, Ovid, Seneca, Tacitus, Suetonius, 17.
— Rome, 129.
— literature, 250.
Paganism, its fall, 252.
Palingenetic numbers in Scripture, 267.
— times, 280.
— principle in nature and revelation, 161.
Palingenesia, 162, 232.
Palm Sunday to fall of Temple, 42 prophetic years, 314.
— to Pentecost, 57 days, 315.
Paley, xiii.
Palæozoic Age, 192, 203.
Pantheism, 4, 5.
Pantheon, 247.
Papacy, its relation to France, 237.

Digitized by Google

Papal temporal power, xxx.
— infallibility, xxx.
Parker, Theodore, 26.
— — on the universal sense of the supernatural, 421.
Parental relation non-existent between Lower Kingdoms and Higher, 115.
— — alike in nature and revelation, 144.
— — involves mediatorial principle, 149.
Pascal, Blaise, xiii, xxi, 31, 32–34, 212, 427.
— — Conversion of, 427.
Passover, 90.
Paton, Sir Noel, picture of Faith and Reason, xxxix.
Paul, St., 9, 16, 18, 20, 120.
— early date of his first four epistles, xxv.
— evidential argument from his life, 41, 42.
Pentacrinites, 111.
Pentecost, 90.
Perigee revolution, 517.
Periodic changes in human frame, (Laycock), 113.
Perseus, cluster of stars in, 411.
Personal and other types, 120.
Perpetual generations, 239.
Pessimism, the offspring of modern materialism, xv.
— geo-centric, 484, 485.
Petra, 46.
Philo, 35.
Philosophy, its failure, 22.
— Dr. J. Duncan on, 50.
— insufficient, 51.
— its chief service, 485.
— secondary to inspiration, 152.
Physical evil, 20.
— world subservient to moral, 81.
Planetary distances and times, table of, 112.
— Periods adjusted to Redemptive chronology, 354, 449.
— — 33 years mean, 370.
— perturbations and compensations, 146.
Planets, 57.
— Adjustment of, 167.
— only 7 known to Copernicus, 62.
— their periodic times controlled by law of analogy, 112.
Plant cells, 103.
— forms, typical, 103.
Plato, 15, 19, 37.
— on Vision of God, 422.
— on Monotheism, 8.
Pliny, 59, 247.
Plutarch, 17, 18.
— on Monotheism, 9.
Polariscope, wonders of, 418.
Polytheism, 4.
Polyps, 72.
Pouchet's "Universe," 174.
Porphyry, 181.
Pre-Adamic man, 459.
Pressensé, xxiv.
"*Principia*," Sir Isaac Newton, 58, 64, 456.
Prism, 65.
Proctor, on the family of planets, 62.
Prodigal son, 220.
Progressive liberation, law in natural and spiritual worlds, 156.
Prophetic times of Daniel, astronomic character, xxxii.
— — their cyclical character, 446.
— types, 120, 122, 142.
Prophecies, Convergence of, in Christ, 125.
— their combination and united testimony, 126.
Prophecy, angelic, 407.
— its scope and object, 32, 178.
— New Testament, 33.
— goal of the geologic ages, 231.
Providence, Prof. Huxley on, 10.
— Jonathan Edwards on, 256
Ptolemaic theory, 57, 479, 480.
Ptolemy, 58.
— his astronomical canon, *Almagest*, 236, 443.
Pteraspis and Pterichthys, 202, 203.
Puritans, 254.
Pythagoras, 57.

R.

Race, the new, 228.
Radiata, 72, 105.
Radicalism, xv.
Rationalism, xv.
— self-contradictory, xxiv.
Rawlinson, xxix.
Reaction, present, against Naturalism, xv.
— in criticism, xxii.
— in science, xv, xxi.
Reconciliation of religion and science, secondary, 454.
Redemption, central in history, 249.
— history of (Jonathan Edwards), 86.
— its central principle, 95.
— drama of, 434.
— central facts of, 88, 438.
Reformation, 243, 253.

Digitized by Google

Regenerate, Christ their Prototype, 126.
Religion and science distinct spheres, 458.
— — — recent attempts to harmonize, 461.
— — — growing harmonization of, 454.
— and revelation, distinct, 458.
— revived in the 18th century, 255.
Remedial principle operative in Nature and Revelation, 146.
Renan, "*Vie de Jésus*," xxiii.
— on the perception of God, 422.
Repentance unknown to Christ, 219.
Resurrection, our Lord's, date of, 516.
Retributive principle, 144.
Retribution, 145.
Revelation needed, 15, 436.
— its existence and evidences, 24, 29, 34.
— Christo-centric, 163.
— the crown of Nature, 82.
— in continuity with Nature, 83.
— and science, obscurity of points of difference, 458.
— moral evidences of, 44.
— testimony of the past to, 46.
Revival, 18th century, xiii.
Revolution, English, 253.
Richardson, "*Geology and Palæontology*," 195.
Richter, 242.
Rocks, igneous and aqueous, 181, 189.
— destitute of fossils, 181.
— volcanic, 181.
— crystalline, 182.
Romanes, Dr. Geo., recantation of early sceptical work, xx.
— — — reconciliation of Religion and Science, 462.
— — — "*Thoughts on Religion*," 462.
Roman history, 246.
— empire, cradle of the Christian Church, 246.
— — symbolized in Daniel, 235.
Romans, Paul's Epistle to, 477.
Rome, pagan, 129.
— fall of, 252.
Rousseau's delineation of Jesus Christ, 39.
Rousseau, 216.
Royal Astronomical Society, *Monthly Notices*, 413.

S.

Sacred writings, 178.
Sandstones, 182.
Satan, his career and work, 389-396.
— contrast to Christ, 390.
Satan conquered by Christ, 392, 396-8.
— hinderer of the Church, 394-6.
— expelled from individuals, 396.
— — — the Roman Empire, 397.
— — — the world, 398.
Saturn, 450.
— adjusted to Redemption Chronology, 368.
Sayce, Prof., "*Lex Mosaica*," xxvi.
— Victoria Institute address, xxix.
Schism in the soul, 19.
Schliemann, xxix.
Schrader, xxix.
Science, modern, founded by religious men, 455.
— premature systems, attack on Christianity, xiv.
— and religion, friends not foes, 468.
— combined with religion in Faraday, Brewster, Whewell, Agassiz, Adams, Cayley, Romanes, Sir George Stokes, and Lord Kelvin, 457.
— cannot deny creation and a Creator, 187.
— sceptical, narrow and dogmatic, xix.
— falsely so called, 50.
Sciences, geology the youngest, 179.
Scientific knowledge necessarily limited, xvi, xvii.
Scripture, types of, 118.
— prophetic types of, 120, 122.
— the story of a series of harmonious providential acts, 84.
Second advent, 233.
Seed, natural and spiritual, 121.
Seneca, 8, 17, 19.
Sevenfold numbers in Scripture, 262.
"Seven times," 237.
Seventy weeks from Ezra terminus, 305.
— — from Nehemiah terminus, 306.
— evidence as to date of Daniel, xxxvi.
Signs of the times, 494.
— — nearness of the coming and kingdom of Christ, 492.
Silurian age, 202.
Simeon, Charles, conversion of, 426.
Sin foreseen, 201.
Sinai, 46.
Sinlessness of Christ, 219.
Smith, xxix.
— William, father of English geology, 183.
— Dr. Henry, 85, 248, 249.
— — on Christian theology, 86.
Social evolution, Benjamin Kidd, 464.
— — xviii.

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Socrates, 22, 81.
Solar system, adjustment of, 167.
— — Celestial machinery, 169.
— year adjusted to cycle of organic change, 317.
— spectrum, 65.
Sophocles on Monotheism, 8.
Spectroscope, 65, 66.
— and solar spectrum, 416.
Spectrum analysis, 65.
Spencer, Herbert, 6, 7.
— — on factors in organic evolution, xvii.
— — on Harmonization of Religion and Science, 461.
— — on progressive co-ordination, 490.
Spiritual world, man's natural perception of, 421.
— — spiritual perception of, 422.
— discernment, 152.
Star, the morning, 164.
Stars, created "to be inhabited," 452.
— their photosphere, 66.
— fifty or sixty millions known, 412.
— their system, A. M. Clerke, 413.
Steinmeyer, xxiv.
Stellar system, 409.
— — its character, 413–15.
Strauss, xxiii.
Strata, geological, 180.
Struggle for existence ethical opposed to the cosmic (Huxley), 159.
— for existence spiritual, 230.
Subordination, law of, 78.
Suetonius, 17.
Summary of argument of book, 436.
Sun, the centre of motion, 62.
— the centre of light and heat, 63.
— of the Christian system rules the universe, 97.
— its constitution, 66.
— spots, 416.
Survival of the fittest, 158.

T.

Tabernacles, 90.
Tables, astronomic, can be derived from prophetic times, xxxii.
Tacitus, 17.
Tadmor, 46.
Talmud, the, 36.
Taylor, Isaac, 38.
— Jeremy, 134.
Telescope, 61.
Temple, the Church the Everlasting Temple of Deity, 499.
Temple, principle in natural and spiritual spheres, 150.
— spiritual, 498.
Tertiary period, 205.
Testimony of Scripture as to the relation of creation to Christ, 51–55.
Theism, 7.
Theistic argument from Nature—summary, 12.
Theocracy, Jewish, 30.
Theology, its centre the mediatorial principle, 86.
Thirty-three fold vital ratio, 447.
"*Thoughts on Religion*" (Romanes), xxi.
Threefold numbers in Scripture, 258.
Tides, in Equinox interval, 514.
Times, periodic, in inorganic and organized mutual adjustment, 174.
— of restitution of all things, 179.
— of the Gentiles, calendar of, 351.
Torpedo, or electric ray, 188.
Trumpet, the seventh, 94.
Truth, its harmonization, 50.
Turkey, approaching dismemberment of, 493.
Twelvefold numbers in Scripture, 264.
Tyndall, 115.
Types of Scripture, 118.
— historical, 120.
— ceremonial, 120.
— prophetic, 120, 122.
— personal, 120.
— relating to the person and offices of Christ, 123–4.
— convergence of in Christ, 125.
— and prophecies — joint testimony, 126.
— the Temple, 151.
— centred in antitypes, 472.
Typical structures, 74.
— character of history of Israel, 120
Typology in the Bible, 119.
Tyre, 46.
Tyrius, Maximus, 16.

U.

Union, laws of, 137.
United States, foundation of, 254.
Unity of nature, argument against Polytheism, 4.
Universal Israelite alliance, 493.
Universe, rational, 11.
— its physical centre, 414.
— space for colonization, 199.

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V.

Vatke, xxvi.
Vegetable life, higher forms increasingly concentrated, 72.
— world, numerical symmetry in, 110.
— kingdom built on inorganic, 78.
— life dependent on solar influence, 63.
— and animal life balanced, 147.
— strata, 182.
Venus, 449.
— adjusted to Redemption chronology, 360.
Vertebrata, 73, 74, 104, 111, 194.
Vicarious principle, its reign, 149.
Victories of Christianity, 44.
"*Vie de Jésus*," Renan, xxiii.
Vinet, "*Vital Christianity*," 152.
— The Root of Christian Holiness, 386.
Vital periodicity, adjustment to historic times, 112, 113, 334.
— and inorganic revolutions, synchronism of, 175.
Volcanic rocks, 189.
Volkmar, xxiv.
Volvox globator, 71.

W.

Wallace's view of evolution, 459.
War, loss of human life, 210.
Water, circulation due to the sun, 63.
Weeks, law of, 113.
— Levitical and prophetic, 270–277.
Weitbrecht, John, conversion of, 427.
Wellhausen, Biblical criticism merely theoretic, xxvii.
Whewell, Prof., "*Bridgewater Treatise*," 175.
— "*Indications of the Creator*," 186.
Wilson, "*Religio Chemici*," 109.
Winds result of solar heat, 63.
Witnesses to God, an unbroken line, 252.
World, material subserves mental, 80.
— designed for intelligence, 80.
— its rulers and heroes, 208.
— ruined, 212.

X.

Xenophon on Monotheism, 8.

Y.

Year-day theory, its correctness confirmed by astronomic character of prophetic times, 450.

Z.

Zendavesta, 17.
Zoophite, 72.

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