

When Science is thus commanded to surrender her intellectual convictions, may she not ask the ecclesiastic to remember the past? The contest respecting the figure of the earth, and the location of heaven and hell, ended adversely to him. He affirmed that the earth is an extended plane, and that the sky is a firmament, the floor of heaven, through which again and again persons have been seen to ascend. The globular form demonstrated beyond any possibility of contradiction by astronomical facts, and by the voyage of Magellan's ship, he then maintained that it is the central body of the universe, all others being in subordination to it, and it the grand object of God's regard. Forced from this position, he next affirmed that it is motionless, the sun and the stars actually revolving, as they apparently do, around it. The invention of the telescope proved that here again he was in error. Then he maintained that all the motions of the solar system are regulated by providential intervention; the "Principia" of Newton demonstrated that they are due to irresistible law. He then affirmed that the earth and all the celestial bodies were created about six thousand years ago, and that in six days the order of Nature was settled, and plants and animals in their various tribes introduced. Constrained by the accumulating mass of adverse evidence, he enlarged his days into periods of indefinite length—only, however, to find that even this device was inadequate. The six ages, with their six special creations, could no longer be maintained, when it was discovered that species, slowly emerged in one age, reached a culmination in a second, and gradually died out in a third: this overlapping from age to age would not only have demanded creations, but re-creations also. He affirmed that there had been a deluge, which covered the whole earth above the tops

of the highest mountains, and that the waters of this flood were removed by a wind. Correct ideas respecting the dimensions of the atmosphere, and of the sea, and of the operation of evaporation, proved how untenable these statements are. Of the progenitors of the human race, he declared that they had come from their Maker's hand perfect, both in body and mind, and had subsequently experienced a fall. He is now considering how best to dispose of the evidence continually accumulating respecting the savage condition of prehistoric man.

Is it at all surprising that the number of those who hold the opinions of the Church in light esteem should so rapidly increase? How can that be received as a trustworthy guide in the invisible, which falls into so many errors in the visible? How can that give confidence in the moral, the spiritual, which has so signally failed in the physical? It is not possible to dispose of these conflicting facts as "empty shadows," "vain devices," "fictions coming from knowledge falsely so called," "errors wearing the deceitful appearance of truth," as the Church stigmatizes them. On the contrary, they are stern witnesses, bearing emphatic and unimpeachable testimony against the ecclesiastical claim to infallibility, and fastening a conviction of ignorance and blindness upon her.

Convicted of so many errors, the papacy makes no attempt at explanation. It ignores the whole matter. Nay, more, relying on the efficacy of audacity, though confronted by these facts, it lays claim to infallibility.

But, to the pontiff, no other rights can be conceded than those he can establish at the bar of Reason. He cannot claim infallibility in religious affairs, and decline it in scientific. Infallibility embraces all things. It

implies omniscience. If it holds good for theology, it necessarily holds good for science. How is it possible to coördinate the infallibility of the papacy with the well-known errors into which it has fallen?

Does it not, then, become needful to reject the claim of the papacy to the employment of coercion in the maintenance of its opinions; to repudiate utterly the declaration that "the Inquisition is an urgent necessity in view of the unbelief of the present age," and in the name of human nature to protest loudly against the ferocity and terrorism of that institution? Has not conscience inalienable rights?

An impassable and hourly-widening gulf intervenes between Catholicism and the spirit of the age. Catholicism insists that blind faith is superior to reason; that mysteries are of more importance than facts. She claims to be the sole interpreter of Nature and revelation, the supreme arbiter of knowledge; she summarily rejects all modern criticism of the Scriptures, and orders the Bible to be accepted in accordance with the views of the theologians of Trent; she openly avows her hatred of free institutions and constitutional systems, and declares that those are in damnable error who regard the reconciliation of the pope with modern civilization as either possible or desirable.

But the spirit of the age demands—is the human intellect is to be subordinated to the Tridentine Fathers, or to the fancy of illiterate and uncritical persons who wrote in the earlier ages of the Church? It sees no merit in blind faith, but rather distrusts it. It looks forward to an improvement in the popular canon of credibility for a decision between fact and fiction. It does not consider itself bound to believe fables and falsehoods that have been invented for ecclesiastical

ends. It finds no argument in behalf of their truth, that traditions and legends have been long-lived; in this respect, those of the Church are greatly inferior to the fables of paganism. The longevity of the Church itself is not due to divine protection or intervention, but to the skill with which it has adapted its policy to existing circumstances. If antiquity be the criterion of authenticity, the claims of Buddhism must be respected; it has the superior warrant of many centuries. There can be no defense of those deliberate falsifications of history, that concealment of historical facts, of which the Church has so often taken advantage. In these things the end does not justify the means.

Then has it in truth come to this, that Roman Christianity and Science are recognized by their respective adherents as being absolutely incompatible; they cannot exist together; one must yield to the other; mankind must make its choice—it cannot have both.

While such is, perhaps, the issue as regards Catholicism, a reconciliation of the Reformation with Science is not only possible, but would easily take place, if the Protestant Churches would only live up to the maxim taught by Luther, and established by so many years of war. That maxim is, the right of private interpretation of the Scriptures. It was the foundation of intellectual liberty. But, if a personal interpretation of the book of Revelation is permissible, how can it be denied in the case of the book of Nature? In the misunderstandings that have taken place, we must ever bear in mind the infirmities of men. The generations that immediately followed the Reformation may perhaps be excused for not comprehending the full significance of their cardinal principle, and for not on all occasions carrying it into effect. When Calvin caused Servetus to

be burnt, he was animated, not by the principles of the Reformation, but by those of Catholicism, from which he had not been able to emancipate himself completely. And when the clergy of influential Protestant confessions have stigmatized the investigators of Nature as infidels and atheists, the same may be said. For Catholicism to reconcile itself to Science, there are formidable, perhaps insuperable obstacles in the way. For Protestantism to achieve that great result there are not. In the one case there is a bitter, a mortal animosity to be overcome; in the other, a friendship, that misunderstandings have alienated, to be restored.

But, whatever may be the preparatory incidents of that great impending intellectual crisis which Christendom must soon inevitably witness, of this we may rest assured, that the silent secession from the public faith, which in so ominous a manner characterizes the present generation, will find at length political expression. It is not without significance that France reënforces the ultramontane tendencies of her lower population, by the promotion of pilgrimages, the perpetration of miracles, the exhibition of celestial apparitions. Constrained to do this by her destiny, she does it with a blush. It is not without significance that Germany resolves to rid herself of the incubus of a dual government, by the exclusion of the Italian element, and to carry to its completion that Reformation which three centuries ago she left unfinished. The time approaches when men must take their choice between quiescent, immobile faith and ever-advancing Science—faith, with its mediæval consolations, Science, which is incessantly scattering its material blessings in the pathway of life, elevating the lot of man in this world, and unifying the human race.

Its triumphs are solid and enduring. But the glory which Catholicism might gain from a conflict with material ideas is at the best only like that of other celestial meteors when they touch the atmosphere of the earth—transitory and useless.

Though Guizot's affirmation that the Church has always sided with despotism is only too true, it must be remembered that in the policy she follows there is much of political necessity. She is urged on by the pressure of nineteen centuries. But, if the irresistible indicates itself in her action, the inevitable manifests itself in her life. For it is with the papacy as with a man. It has passed through the struggles of infancy, it has displayed the energies of maturity, and, its work completed, it must sink into the feebleness and querulousness of old age. Its youth can never be renewed. The influence of its souvenirs alone will remain. As pagan Rome threw her departing shadow over the empire and tinctured all its thoughts, so Christian Rome casts her parting shadow over Europe.

Will modern civilization consent to abandon the career of advancement which has given it so much power and happiness? Will it consent to retrace its steps to the semi-barbarian ignorance and superstition of the middle ages? Will it submit to the dictation of a power, which, claiming divine authority, can present no adequate credentials of its office; a power which kept Europe in a stagnant condition for many centuries, ferociously suppressing by the stake and the sword every attempt at progress; a power that is founded in a cloud of mysteries; that sets itself above reason and common-sense; that loudly proclaims the hatred it entertains against liberty of thought and freedom in civil institutions; that professes its intention of repressing the one and destroy-

ing the other whenever it can find the opportunity ; that denounces as most pernicious and insane the opinion that liberty of conscience and of worship is the right of every man ; that protests against that right being proclaimed and asserted by law in every well-governed state ; that contemptuously repudiates the principle that the will of the people, manifested by public opinion (as it is called) or by other means, shall constitute law ; that refuses to every man any title to opinion in matters of religion, but holds that it is simply his duty to believe what he is told by the Church, and to obey her commands ; that will not permit any temporal government to define the rights and prescribe limits to the authority of the Church ; that declares it not only may but will resort to force to discipline disobedient individuals ; that invades the sanctity of private life, by making, at the confessional, the wife and daughters and servants of one suspected, spies and informers against him ; that tries him without an accuser, and by torture makes him bear witness against himself ; that denies the right of parents to educate their children outside of its own Church, and insists that to it alone belongs the supervision of domestic life and the control of marriages and divorces ; that denounces "the impudence" of those who presume to subordinate the authority of the Church to the civil authority, or who advocate the separation of the Church from the state ; that absolutely repudiates all toleration, and affirms that the Catholic religion is entitled to be held as the only religion in every country, to the exclusion of all other modes of worship ; that requires all laws standing in the way of its interests to be repealed, and, if that be refused, orders all its followers to disobey them ?

This power, conscious that it can work no miracle to

serve itself, does not hesitate to disturb society by its intrigues against governments, and seeks to accomplish its ends by alliances with despotism.

Claims such as these mean a revolt against modern civilization, an intention of destroying it, no matter at what social cost. To submit to them without resistance, men must be slaves indeed !

As to the issue of the coming conflict, can any one doubt ? Whatever is resting on fiction and fraud will be overthrown. Institutions that organize impostures and spread delusions must show what right they have to exist. Faith must render an account of herself to Reason. Mysteries must give place to facts. Religion must relinquish that imperious, that domineering position which she has so long maintained against Science. There must be absolute freedom for thought. The ecclesiastic must learn to keep himself within the domain he has chosen, and cease to tyrannize over the philosopher, who, conscious of his own strength and the purity of his motives, will bear such interference no longer. What was written by Esdras near the willow-fringed rivers of Babylon, more than twenty-three centuries ago, still holds good : "As for Truth it endureth and is always strong ; it liveth and conquereth for evermore."

INDEX.

A.

ABSORPTION, doctrine of, 122.
Abubeker invades Syria, 87.
Active intellect, 138.
Æneas Sylvius's description of the British Isles, 265.
Agésilas, his expedition, 5.
Alexander invades Persia, 6; death of, 16.
Alexandria, foundation of, 17; Museum, 18; library, 19; captured by Amrou, 94.
Al-Gazzali, quotation from, 101; on the soul, 127.
Algebra invented by the Saracens, 112, 115, 304.
Alhazen, 117.
Alliance, Evangelical, 352.
Almagest, 112.
Al-Mamun measures the earth, 109, 155; his libraries, 112; quotation from, 115; denounced, 142; translates the "Syntaxis," 158.
Almansor at Bagdad, 111.
America, discovery of, 159; its progress, 286.
American Revolution, 324.
Amrou invades Egypt, 93; consults the khalif about the Alexandrian Library, 102.
Anæsthetics, 318.
Anathema, Nicene, 53; of the Vatican Council, 350.
Andalusia, conquest of, 96; civilization of, 141.
Animals, are they automata? 128-136.
Antipodes, St. Augustine on the, 64.
Apollonius, his mathematical works, 29; water-clock of, 31.

Aquinas, St. Thomas, resists Averroism, 150.
Arabs, their fatalism, 106; literature, 111; manufacture and agriculture, 117; inventions and discoveries, 158.
Arbela, battle of, 6.
Archimedes, 28.
Argyll, Duke of, quotation from, 223.
Aristarchus, 156.
Arithmetic, Indian, 115.
Aristotelian philosophy, 22.
Arius, 51; councils respecting, 205.
Assyrian printing, 14.
Astronomy, Arabian, 116; periods of progress, 232.
Atmospheric refraction, 117, 158.
Augustine denounces Pelagius, 56; review of his writings; 58-62; on antipodes, 64.
Auricular confession, 207.
Averroism, 124, 139; in Andalusia, 142; opposed by the Dominicans, 143; in Europe, 149; in Italy, 150, 210.

B.

Babylon, 10.
Babylonian astronomy, 13.
Bacon, Lord, 233.
Bagdad a centre of science, 111.
Bahira converts Mohammed, 78.
Bartholomew's eve, 214.
Bede, Venerable, quotation from the, 65.
Bozrah, fall of, 88.
Bradley discovers aberration of the stars, 172.
Bruno, 177; is murdered, 180.

Buddhism, doctrine as to the soul, 122; nature of, 138.

C.

Caaba, 86.
Cajetan to Luther, 211.
Callisthenes, death of, 16.
Calvin, 213; burns Servetus, 216; on predestination, 252.
Catholicity, the failure of, 285, 321.
Cape, the, doubling of, 163, 294.
Cardinals, college of, 276.
Carthage burned by the Saracens, 95; had introduced Latin Christianity, 95.
Cassini discovers the oblateness of Jupiter, 188.
Censorship, 293.
Chain of Destiny, 108.
Chakia Mouni, 138.
Chaldean Church established, 73; observations, 13.
Chemistry, origin of, 112-116.
Chosroes invades the Roman Empire, 76; captures Jerusalem, 76; carries off the cross, 77.
Christianity, origin of, 34; paganization, 46; transformed into a political system, 52.
Chronology, vulgar, 184; patristic, 184.
Chronometer, 312.
Church, Catholic, its numbers, 328; its pretensions; 329; appanage of Italy, 341; its claims, 365.
Circumnavigation of the earth, 163.
Civilization and Catholicity, 282.
Clay libraries, 13.
Clementine Constitutions, 211.
Colenso on the Pentateuch, 219.
Coliseum, 256.
Colleges, Arabian, 214.
Columbus, voyage of, 159; discovers the line of no variation, 162.
Confusion of tongues, 186.
Conservation of force, 358.
Constantine becomes emperor, 39; his gift to the pope, 272.
Constitution, dogmatic, of Catholic faith, 344, 354.
Cooling of the earth, 245.

Copernicus, 167; his system established, 172.
Cosmas Indicopleustes, 64, 154.
Cosmogony, scientific, 188.
Councils determine truth, 204; infallible, 226.
Creation and evolution, 192.
Crisis, impending, 327.
Criterion of truth, 201.
Crown of thorns, 270.
Ctesibius invents the fire-engine, 31.
Curia, its business, 274.
Cyril murders Hypatia, 55; bribes the eunuch, 72.

D.

Damascus, fall of, 76, 89.
Death, introduction of, into the world, 56.
Decretals, Isidorian, 271.
De Dominis, punishment of, 319.
De Gama, 163, 294.
Degree, measure of a, 165, 236.
D'Élcano, Sebastian, completes circumnavigation, 164.
Deluge, its date, 185.
Descartes on automata, 128-130; his geometry, 305.
"De Tribus Impostoribus," 148.
Development theory, 118, 248.
Diocletian opposes Christianity, 38; abdication of, 39.
Dionysius Exiguus constructs chronology, 184.
Dogmatic constitution of Catholic faith, 344, 354.
Domestic improvements, 314-316.
Dual government, 266, 342.
Dualism, 15.
Du Bois-Reymond on the ant, 129.

E.

Earth, its form, 108; measured by Al-Mamun, 109; theological view of, 153; measures of, 155, 165; circumnavigation of, 164; measured by the French, 166; dimensions of, 167, 174; distance from the sun, 173; age of, 182; oblateness of, 189; formation of, 189;