NATIONAL SECULAR SOCIETY

Martyrs of Progress.

BEING HISTORICAL SKETCHES OF

THE PERILS & PERSECUTIONS

OF

DISCOVERERS AND TEACHERS OF ALL AGES AND NATIONS.

BY

CHARLES COCKBILL CATTELL.

Compiler of "A String of Pearls."

"Freedom has been hunted through the world, and is ever open to insult and injury. It is crushed by conquest, frowned from courts, expelled from colleges, scorned out of society, flogged in schools, and anathematised in churches. Mind is her last asylum; and, if freedom quail there, what becomes of the hope of the world or the worth of human nature?"—W. J. Fox.

LONDON:

CHARLES WATTS, 84, FLEET STREET, E.C.

INTRODUCTION.

THE Conservative element in human nature no doubt has it uses, if we could but patiently distil them out. has always been sufficient of this element to raise obstacles to progress. Opposition to new truths has always been the custom in every country. Whenever one man throws new light on any subject, a hundred others do their best to ex-The discoverer or teacher of new things has always been treated as the enemy of the old. and persecutions endured by men whose ideas were in advance of their time constitute a page in the history of the world discreditable to our common humanity. It would appear to indicate a sign of insanity in any man if he attempted to extinguish the sun-but hundreds of men have united to strangle the truth in its infancy—which is, indeed, the light of the world. An old writer once described the world as a madhouse, and the allegation seems deserved when we read of the treatment received by the teachers and discoverers of past ages. The persecution practised in past times was not confined to any particular sect or class Opposition to any new discovery or new doctrine is legitimate and useful; but the prison, the faggot, and other engines of torture, cruelty, and death have been the means employed to prevent the spread of principles antagonistic to those prevailing at the time. The memory of those who perished in their struggle against ignorance, bigotry, and intolerance should be cherished by all who inherit the blessings of the new truths and extended liberty bequeathed them. To show how slowly the world learns the principle of freedom, so necessary to the happiness and progress of mankind, we may mention the historical fact, pointed out by Buckle, that it was not till the end of the 16th century that a man could write anything antagonistic to his contemporaries without placing himself in bodily peril. Civil and religious freedom has been won at great cost; and to value the priceless treasure, and extend its operation over the wide world, is the privilege and the duty of the present generation. The friends of freedom are no longer hunted through the world like wild beasts, or put to death as the enemies of mankind; but the policy of wise men is to increase their number, so as to prevent the possibility of any scientific discovery, or any political or social improvement being rejected as blasphemous, treasonable, or absurd. Even in England these epithets have been employed in the hearing of men now living. There is still opportunity for all who can speak, write, or work to establish on a sure foundation the principles of justice and freedom among mankind. The story of the perils and persecutions of discoverers and teachers extends through scores of generations for two thousand years. It begins with the dawn of knowledge, and extends through the life of man, losing its fierce ness only in the present generation. Let us hope that the persecution will expire with this age, and that the future character of humanity will not be defiled and disgraced by the accursed thing. It is strange that persecution, which nearly always fails to arrest the progress of any doctrine, or to exterminate opposition, should have been persisted in by persons of irreproachable character. Many persons to-day maintain that they should never have thought of persecuting those from whom they differed. But, as the late John Stuart Mill points out, they forget that some of the persecutors were as good as them-It is somewhat remarkable that the emperors and others who took the most prominent part in the persecutions of past times were men of high moral character, and remarkable for their sincerity. This was so in Rome and in Spain. Still the folly and wickedness of persecution remain —the crime against humanity is none the less—the cruelty is not lessened by the assertion that the perpetrators believed they were doing the will of God. It is as absurd to oppose opinions by force as to attempt to storm a castle by logic. The wildest superstitions have flourished in some cases because of the persecution of their adherents. elder Disraeli refers to a few of the victims of their bigoted, fanatical, or ignorant contemporaries in the following graphic sentences, which will explain to the reader the object and nature of this work :-

"Before the times of Galileo and of Harvey, the world believed in the diurnal immovability of the earth and the stagnation of the blood; and for denying these the one was persecuted and the other ridiculed. The intelligence and virtue of Socrates

were punished with death. Anaxagoras, when he attempted to propagate a just notion of a Supreme Being, was dragged to prison. Aristotle, after a long series of persecutions, swallowed poison. The great geometricians and chemists, as Gerbert, Roger Bacon, and others, were abborred as magicians. gilius, Bishop of Salzburg, having asserted that there existed antipodes, the Archbishop of Mentz declared him a heretic, and consigned him to the flames; and the Abbot Trithemius, who was fond of improving stenography, or the art of secret writing, having published some curious works on that subject, they were condemned as works full of diabolical mysteries. Galileo was condemned, at Rome, publicly to disavow his sentiments regarding the motion of the earth, the truth of which must have been abundantly manifest. He was imprisoned by the Inquisition, and visited by Milton, who tells us he was then poor and old. Cornelius Agrippa, a native of Cologne, and distinguished by turns as a soldier, philosopher, physician, chemist, lawyer, and writer, was believed to be a magician, and to be accompanied by a familiar spirit, in the shape of a black dog; and he was so violently persecuted that he was obliged to fly from place The people beheld him as an object of horror, and not unfrequently, when he walked, he found the streets empty at his approach. This ingenious man died in an hospital. When Urban Grandier, another victim of the age, was led to the stake, a large fly settled on his head. A monk, who had heard that Beelzebub signifies in the Hebrew the God of Flies. reported that he saw this spirit come to take possession of him. Even the learned themselves, who had not applied to natural philosophy, seem to have acted with the same feelings as the most ignorant; for when Albertus Magnus—an eminent philosopher of the thirteenth century-constructed an automaton, or curious piece of mechanism, which sent forth distinct vocal sounds, Thomas Aquinas, a celebrated theologian, imagined it to be the work of the Devil, and struck it with his staff, which, to the mortification of the great Albert, annihilated the labour of thirty years. Descartes was horribly persecuted in Holland when he first published his opinions. Voetius, a person of influence, accused him of Atheism, and had even projected in his mind to have this philosopher burnt at Utrecht, in an extraordinary fire, which, kindled on an eminence, might be observed by the seven provinces. This persecution of science and genius lasted till the close of the seventeenth century."

THE MARTYRS OF PROGRESS.

PART I.

Æsopus.

Æsopus (commonly called Æsop) was born in the sixthcentury B.C., where it is unknown, but it is supposed a Phrygia, in Asia, and perished at Delphi about 560 B.C.

He is generally considered the father of fable writing, although it appears to have been in existence before, and the authenticity of some of those published in his name is doubtful. He passed the greater and first part of his life in slavery. While a slave in Athens, he acquired some knowledge of Greek and of moral philosophy. He afterwards became the slave of Iadmon, of Samos, who gave Æsop his liberty. Croesus, King of Lydia, hearing of Æsop's wisdom, invited him to his court, where he lived several years.

Æsop was sent to Delphi by the king, to present a large sum of gold as a sacrifice to Apollo, and also to distribute a sum of silver to each citizen. Finding the citizens ignorant and lazy, he reproached them, and sent the silver back to the king, describing the Delphians as unworthy of liberality This so enraged the Delphians that they brought a false accusation of sacrilege against Æsop, and hurled him from the top of the rock Hyamphia, and thus he perished.

When they were going to throw him off the rock, he related to them the fable of "The Eagle and the Beetle," with the view of showing that divine justice would not let their act go unpunished. Soon after this event the land became barren, and pestilence followed, and their oracle informed them that their misery was caused by the unjust death of Æsop. His death was much regretted by the Athenians, who erected a statue to his memory.

The object of fable is to convey some useful truth in an allegorical form. It is supposed that Æsop chose the fable form of writing because of his position in life, it being an inoffensive method of conveying unpleasant truths, and had more weight than his own person could give.

On passing through Athens, and finding the people dissatisfied with the usurpation of Pisistratus, he related his fable of "The Frogs Petitioning Jupiter for a King." "The Fox and the Swallow" he related to the Samians when they accused their ministers of plundering the commonwealth, intending to caution them against appointing a new set more poor and greedy than those in office.

SOLON.

Solon was born at Salamis 637 B.c., and died at Cyprus

in his eightieth year.

His father was a descendant of Codrus, the last King of Athens, and his high birth and extensive acquirements enabled him to obtain the highest office of the State. He distinguished himself as orator, soldier, poet, and legislator. His writings, orations, and acts were intended to inspire the Athenians with a love of justice and liberty. So far as we can judge, his own exclamation truthfully describes himself when he says: "Oh, my beloved country! I have served thee both in word and deed to the utmost of my power. I have neglected nothing to maintain thy liberty and laws, but I now stand alone in opposition to the tyrant, therefore I depart, I leave thee for ever."

Pisistratus, by flattering the Athenians, made them think himself more attached to their interest than Solon was. Solon told them the truth, whether agreeable or otherwise. He offered to prevent Pisistratus usurping the Government,

but he was treated as a madman.

Previous to this event, the Athenians had offered Solon the supreme power, and even his most intimate friend blamed him for not accepting it. But he steadfastly refused to accept the title of Tyrant—he held it better that his countrymen should be governed by a certain number of magistrates than by one absolute ruler. In his letter to Pisistratus he says: "I am willing to acknowledge you the best among tyrants; but I cannot think of returning to Athens after having established a free government and refused the sovereignty."

After this he travelled to Sardis, where many of the most popular Greeks went to reside. Croesus, King of Lydia, having heard of Solon's wisdom, invited him to his court; but Solon replied that he had resolved to live only in a free State, and that life was to be enjoyed in tranquillity only where all were on equal footing. He, however, visited Croesus, and astonished the king by his remarks.

Solon held the opinion that, whenever princes were approached, it ought to be with good council on the lips, nor ought they to hear anything but the truth. Solon was fond of social entertainments, but even in these he would have nothing but the truth spoken. When Thespis had finished acting one of his own compositions, Solon asked him if he was not ashamed of telling so many falsities to the world. Thespis replied: "Not at all; I mean only to amuse by them, not to injure." Solon answered, striking the floor forcibly with his stick: "But if you admit falsehood into your entertainment, and treat it as a jest, we shall soon find it creeping into public business and our most serious actions."

The lover of justice and liberty cannot read the history of Athens without a feeling of sorrow that Solon, the great, good, brave, and wise, should have been compelled to exile himself from it by the folly and ingratitude of his fellow citizens. Like a noble Roman farmer and a brave English farmer, Solon refused to become the permanent and unlimited monarch, and for his obstinacy his friends were

inclined to think him a fool or a madman.

Solon was the author of the excellent maxim—"Observe moderation in all things:" He seemed disposed to a system of equality, by which the poor understood that all were to be on equal footing, and the rich that it meant distribution according to the birth and dignity of individuals. Solon abrogated all the laws of his cruel predecessor, Draco, under whose government all offences were punished with death, and hence arose the saying that "his laws were written in blood."

Solon divided the people into three classes, according to their property at the time, giving all, except artisans, a part in the management of affairs. The principal magistrate was to be always elected from the first-class of citizens. He who remained neutral in tumult was to be considered infamous.

He prohibited speaking ill of the dead. He who dissipated his fortune was deprived of all privileges, as were those who refused to support their parents, Foreigners he admitted who sought some profession, as also those who were banished from their own country. The children of those who fell in defending their country were kept at the public cost. Theft and adultery he punished with death, and he who caused the loss of another's eye was to lose both his own.

All his laws were engraved on tablets. The council bound themselves to keep them, and make others do likewise, and the first who failed was to present to the temple

of Apollo a statue of gold the weight of himself?

Solon maintained that we have no better guide of conduct than reason, and that we ought to neither say nor do anything without consulting it; that a man's probity is more to be regarded than his oath; that friendships ought to be carefully formed, and could not be broken off without danger; that the safest and quickest way of repelling injury was to forget it; that no man ought to command until he had learnt to obey; that falsehood ought to be abhorred, parents reverenced, and no intercourse held with the wicked.

PYTHAGORAS.

Pythagoras was born about 586 B.C., and died about 506 B.C.

He was a native of Samos, and is said to have derived his name from the fact that his oracles were as true as those of the Pythian Apollo. In his youth he is stated to have made three silver cups, which he presented to the priests of Egypt, from whom, after much difficulty, he obtained many years' instruction. He afterwards returned to his native place to establish a school. This not proving successful, he visited Delos, offered cakes to Apollo, and received certain moral doctrines, which he afterwards delivered as divine precepts at Samos. This he did with an air of sacred authority. He was a man of dignified appearance, and preserved his conntenance from emotion of grief, joy, and anger. He wore a long robe, and, by his abstemious habits, &c., he made himself appear superior to humanity,

and his doctrines as the oracles of heaven, from which place he pretended to receive them. He had also a secret cave, in which he lived a whole year; and when he emerged from it, looking pale, meagre, and frightful, he informed the people he had visited the infernal regions. While on this visit he is said to have observed the soul of Hesiod chained to a column, grievously tormented; and the soul of Homer was suspended from a tree, surrounded by serpents, for the falsehoods he had told and attributed to the gods. He also observed that the souls of husbands who had treated their wives with harshness and severity were horribly tormented.

During his seclusion in the cave his mother reported to him all that had occurred on the earth, the relation of which by himself caused the people to consider him a divinity. He also gained credit with the populace by

working what were esteemed wonderful miracles.

After pursuing his plan of instruction at Samos with considerable success, he incurred the displeasure of Polycrates. Being unable to bear the oppression of Polycrates, he exiled himself from his country, travelled into Italy, and founded a school at Crotona. While in this city he taught with Many persons visited him from various great success. countries. He is said to have had from six hundred to two thousand disciples, who submitted to the strict discipline and abstinence he prescribed. They held, in common with their master, that among friends all are equal, and all things ought to be common. They accordingly established a small republic, or fraternity, in which about six hundred lived, together with their wives and families. was divided, and appropriated to education, amusement, and civil and domestic affairs, under admirable regulations. Before any one could enter their "common auditory" he had to be examined by Pythagoras, and to pass through a severe course of abstinence, exercise, and silence. who distinguished themselves in this fraternity were sent out as missionaries. He recommended his disciples a wholesome practice of interrogation, proposing to themselves such questions as-Where have you been? In what have you been employed? What have you done well or ill? He is noticed as the first who refused the title of sage. His words had an importance equal to the oracles of Delphos, and he is said to have framed laws for various countries.

It is generally believed that no written laws or doctrines exist of his own except those attributed to his disciples. What are known as "The Golden Verses" are considered a summary of his doctrines. He taught music, and the invention of the monechard is attributed to him. imagined that the planets produced sound by striking the ether through which they passed in the celestial spheres; and, as they were all adjusted with perfect regularity, they necessarily produced harmonious sounds by their revolu-It was he who first discovered the morning and evening star to be the same. He seems to have possessed some general notions of astronomy. He describes the revolutions of Saturn, Jupiter, Mars, the Sun, Mercury, and The earth he considered a globe, admitting of antipodes inhabited by persons whose feet were opposite to The moon and other planets he believed to be He seems, however, to have considered the sun, moon, and stars as gods, because pervaded by a subtle ether.

He taught that the winds were caused by the rarification of the air; the thunder was occasioned by the collision of the clouds; earthquakes by air pent up in caverns; and that the overflowing of the Nile was caused by the melting of the snow of Ethiopia, which formed torrents that discharged themselves in the sources of the Nile. of animals he attributed to heat and moisture. He held that the rainbow was caused by the reflection of the solar rays from a cloud opposite the sun; the moon to be an opaque body, habitable, and with mountains, rivers, and valleys like the earth; and the sun to be a body of red-hot The last declaration called down the anathemas of the priests, who considered it nothing less than Atheism. Indeed, he believed the universe to be animated and intelligent, and that from its soul or principle of life emanated the souls of men and all other animals; that the elements were subject to succession of changes, but that nothing in the universe could be totally lost. He was fond of mathematics and goemetry. He first demonstrated that the interior angles of every triangle are together equal to two right angles; that in sectangular triangles the square of the side which subtends the right angle is equal to the two squares of the sides which contain the right angle. said he was so transported by the discovery of the latter theorem that he sacrificed a hundred oxen to the gods, to

whom he believed himself indebted for the discovery. Archbishop Fenelon says that (Pythagoras being a strict vegetarian), if we credit this story, we must assume the oxen to have been made of flour and honey. Pythagoras only offered loaves, cakes, etc., believing that the gods turned away in horror from bleeding victims, and to make offerings of such was the surest way to draw down the indignation of the gods. He forbade oaths and appeals to the gods, holding that a man's integrity ought to be such that his bare assertion would be received without hesitation.

According to Aristotle, moral philosophy, or precepts for the guidance of human conduct, were first taught by Pythagoras. He divides virtue into public and private—private virtue implies education, fortitude, sobriety, prudence, silence, abstinence from animal food. When the passions

are kept in subjection by reason, there is virtue.

Children should be tamed to subjection, so that they may be able to submit to reason; let them be conducted in the best course, and habit will make it most pleasant. whatever you judge to be right, irrespective of what the vulgar may think; if you despise their praise, despise their blame. That which is good is to be preferred before that which is agreeable. Sobriety is the strength of the soul; drunkenness is temporary frenzy. Animal pleasures are only to be enjoyed in accordance with nature. Wisdom and virtue are our best defence. It is better for men to respect you than to fear you, for the former produces admiration, and the latter hatred. The proof of good education is being able to endure the want of it in others. To avoid contention between friends, shun all possible occasions of strife, suppress resentment, and exercise mutual forbearance. Friendship is never to be interrupted; a friend ought never to be forsaken in adversity, nor for infirmity of nature; and, if depraved, we should endeavour by acts and words to reclaim him. True friendship is an immortal union. Pythagoras divided man's life into four parts. Man is a child till 20, a youth till 40, a man at 60, and an old man at 80. After this, he is no longer to be reckoned among the living.

Pythagoras compared life to a fair, where some go for one reason, and some for another. So in life some are the slaves of ambition, some of glory, and others are contented

with the investigation of truth.

He taught that, next to gods and demons, the highest

reverence is due to heroes, legislators, and parents. God is the universal mind, giving life, motion, and intelligence,

diffused through all things.

Man is a microcosm; his soul is the self-moving principle; the rational portion is seated in the brain, and the sensitive in the heart. The sensitive perishes, but the rational, being a part of the supreme and incorruptible, is also immortal. The rational soul, being released from the body, assumes the ethereal form, passes into the dead regions, and afterwards returns to become the inhabitant of some body—human or otherwise. When sufficiently purified it enters the regions of the gods, and becomes associated with the eternal source from which it originally proceeded.

Pythagoras gave special discourses to the public, to different classes—as husbands, wives, parents, children, etc. Had he confined himself to teaching philosophy in the ordinary way, he would not have been interfered with; but when he urged the people to obtain their rights from their tyrannical governors, a powerful opposition was raised against him, his establishment was set on fire, and many of his disciples perished in the flames. Others were compelled to fly for their lives; and Pythagoras himself, being surrounded everywhere by enemies, took refuge in the temple of the Muses, where, it is said, he died of hunger.

His disciples afterwards erected a statue to his memory, converted his house into a temple, and appealed to him as

a divinity.

Ovid thus describes the doctrines of Pythagoras:-

"What, then, is death but ancient matter, drest In some new figure, and a varied vest? Thus all things are but altered, nothing dies; And here and there th' unbodied spirit flies, By time, or force, or sickness dispossess'd, And lodges where it lights, in man or beast, Or hunts without, till ready limbs it find, And actuates those according to their kind; From tenement to tenement is tost, The soul is still the same, the figure only lost; And as the softened wax new seals receives, This face assumes, and that impression leaves; Now called by one, now by another, name, The form is only changed, the wax is still the same. So death, thus call'd, can but the form deface, Th' immortal soul flies out in empty space, To seek her fortune in some other place."

ARISTIDES.

Aristides was born in Alopece, flourished in the fifth

century B.C., and died at Pontus 467 B.C.

According to Plutarch, Aristides was the son of Lysimachus, of the tribe of Antiochis. In his youth he is described as having been steady, inflexibly just, incapable of using falsehood, flattery, or deceit, even at play. He served his country as a duty, without expecting reward or profit. The people considered that the following words of Æschylus accurately described Aristides:—

"To be, and not to seem, is this man's maxim; His mind reposes on its proper wisdom—He wants no other praise."

He executed justice impartially, as a judge ought to-not only to his friends, but to his enemies also. Plato believed that Aristides was the only man among the illustrious of Athens who was worthy of real esteem. Aristides evinced on several occasions extreme magnanimity of character when placed in a position where he might have punished those who had injured him; but he never indulged in revenge. He neither envied the prosperity of his enemies nor rejoiced at their misfortunes. With regard to himself and his country, he would only that justice be done, and for that he lived and fought. The Athenians were attached to him on this account, and gave him the divine title of the Just, which, says Plutarch, kings and tyrants were never Their ambition invariably moves in another fond of. direction; they esteem it the greatest honour to be named takers of cities, "thunderbolts or conquerors," always preferring the fame of power to that of virtue. "They foolishly neglect virtue, the only divine quality in their power; not considering that it is justice alone which makes the life of those flourish most in prosperity and high stations, heavenly and divine; while injustice renders it grovelling and brutal."

When invested with great authority Aristides did not abuse it. While others filled Athens with magnificent buildings, wealth, and luxuries of life, his object was to increase its virtues. An answer given by the direction of Aristides to the Lacedæmonians shows this. The Athenians said that "they could easily forgive their enemies for thinking that everything was to be purchased with silver and gold, because they had no idea of anything more

excellent." Aristides bade the Spartan ambassadors tell them that "the people of Athens would not take all the gold, either above or under ground, for the liberties of Greece."

Greatly was Aristides loved and honoured for his grandeur of character. Through his exposure of the conduct of some men of his time he was condemned; but by the exertion of some virtuous citizens he was again elected chief treasurer.

In the year 483 B.C. he was banished by the method called "ostracism." It would have been difficult to find a man less deserving of such treatment, for he is described by Herodotus as the "justest and best man in Athens." In revising the constitution, he advised that men should be elected to office without regard to birth or wealth. Plutarch says that when this noble man died his tomb had to be erected by the State, as he did not leave sufficient in his house to pay for his burial. After his death it is said that the Athenians voted land and money to his son and daughter as a mark of respect to the memory of their father.

Anaxagoras.

Anaxagoras was born at Clazomene, Ionia, 500 B.C., and died at Lampsacus 428 B.C.

The most ancient school of Grecian philosophy was instituted by Thales, of Ionia. He taught that the first substance which produced all things was water. He considered God the most ancient Being; that all things are full of him, and that he animates the universe as the soul does the body of man. The principle of motion he held to be mind or soul. To Anaxagoras is ascribed the motto, "Know thyself;" but it appears to have been the motto of his predecessor, Thales.

The sciences commenced by Thales were cultivated by Anaximander, his disciple. He, however, taught that the first principle or origin of things was Infinity, and he was the first who committed the principles of science to writing. The disciple of Anaximander was Anaximenes, who taught that the origin of all things was air; that the form of the earth, sun, and moon was that of a circular plate; that the

stars were fixed in the heavens as nails in a crystalline plane, and that the earth was a tablet supported by air. The disciple of Anaximenes was Anaxagoras, the subject of the

present sketch.

When young he left his country, and visited Athens to study eloquence and poetry. He particularly admired Homer as the best preceptor in both writing and morals. Hearing of the fame of the Milesian school, he left Athens, and became the disciple of Anaximenes. Whilst engaged in the pursuit of knowledge, his property at home was wasting; and, when he discovered it, he remarked "that to his ruin he owed his prosperity." Some years after he returned to Athens, to teach philosophy; and among his pupils were Euripides, Pericles, Socrates, and Themistocles. Anaxagoras was the first of the Greeks who believed mind to exist apart from matter. The Deity he described as pure intelligence, capable of forming and giving motion to the material mass of matter. Anaxagoras separated the active living principle, which he concluded must have existed from all eternity. He supposed that various bodies were generated from particles of the same nature. originated from a confused mass of different kind of particles. His system is described in the following lines of Lucretius :-

"With Anaxagoras, great nature's law
Is similarity; and every compound form
Consists in parts of minute, each like the whole;
And bone is made of bone, and flesh of flesh;
And blood, and fire, and earth, and massy gold,
Are in their smallest portions still the same."

He assumed the particles or basis of nature to be without life or motion, and from that inferred the existence of an infinite and eternal mind, having motion and life in itself, communicating these properties to matter, and, by uniting the various particles of matter, produced the various forms that exist in nature. God, in his philosophy, is the author of life and motion. Instead of assuming, like his predecessors, the necessary motion of matter, he assumed that pure mind, free from all material concretions, governs the universe.

Anaxagoras describes the creation thus: "In the beginning all things were mingled together, and remained in one confused mass until superior intelligence separated and disposed them as we now see them." He did not believe that

this intelligence called matter out of nothing, but only that it arranged matter. It was this doctrine that caused him to be distinguished by the epithet "mind." He acknowledged no other divinity than intelligence, and held in perfect contempt the gods of the people. This caused Lucian to say that he was destroyed by Jupiter with a thunderbolt. The chief good he placed in contemplation, and said he came into the world to contemplate the sun, moon, and

other objects in nature.

The fame of Anaxagoras caused him to be cruelly per secuted. He was imprisoned and condemned to death: but, by the influence of Pericles, his sentence was altered to banishment. The causes of his persecution have been variously stated. Some attributed it to his teachings regarding the sun, which he considered merely an inanimate and fiery body, unworthy of worship. He boldly contradicted the vulgar superstition of the people, and ridiculed the priests for pretending that an unfortunate event would occur. because of a ram having only one horn. He opened the head of the ram, and showed them that the cause of the phenomenon was purely natural, the head being so constructed as to make the growth of a second horn a natural impossibility. This being considered "Atheism," he was banished from Athens to Lampsacus. When he was informed of his sentence, he said: "Nature will one day pronounce the same sentence on them." While in exile, in answer to a question of a friend, he said: "It is not I who have lost the Athenians, but the Athenians who have lost me." When Pericles paid him a visit, he was wrapped up in his cloak preparing to die; and Pericles having neglected him, he exclaimed: "O Pericles, those who need a lamp should always give it oil." When dying he was asked if he wished his body taken to his native city, to which he answered: "It is unnecessary; the way to the other world is everywhere alike open." On being asked how he should like respect paid to his memory, he answered: "By granting a holiday every year on the day of his death to all the schools of Lampsacus," which custom was observed for many centuries.

The inhabitants erected a tomb to his memory, on which was inscribed—"This tomb great Anaxagoras confines, whose mind explored the paths of heavenly truth." Two altars were also erected—one dedicated to mind, and the

other to truth.

CICERO.

Cicero was born at Arpinum January 3rd, 106 B.c., and

killed December 7th, 43 B.C.

According to Plutarch, his mother was delivered of him without pain, and a spectre appeared to his nurse, which foretold that the child she had the happiness to attend would one day prove a great benefit to the whole commonwealth. These things, says Plutarch, might have passed for idle dreams had he not soon demonstrated the truth of the prediction.

Cicero was the son of a Roman knight, and in his youth he studied under various eminent masters, greatly distinguishing himself in literary contests with his companions. After careful and laborious study, Cicero, at the age of twenty-six, appeared as a pleader at the Roman bar.

He wrote several valuable works, among which are the following:—"De Oratore," containing precepts of the art he practised; De Legibus, "On Laws," in which he contends that—the universe being one immense commonwealth of gods and men, who participate in the same essence, and form one community—reason dictates that the law of nature and nations should govern men according to the rule of right which the Deity has impressed on every virtuous mind. Cicero also wrote many philosophical works, among which were—"On the Universe," "On the Gods," and "On Moral Offices."

Upon receiving the news of the total defeat of Antony before Mutina, Cicero delivered his fourteenth and last philosophical oration. Antony, Lepidus, and Octavius agreed to give up the enemies of each party, and on Antony's list the name of Cicero was registered. Cicero, being informed of his danger, fled to Caieta for safety. Here, in the middle of the night, the soldiers of murderous intent discovered him: an alarm was given, and his friends. in the hope of saving him, removed him towards the sea. But the messengers of death pursued him, and, overtaking him in a wood, approached his litter. Cicero, perceiving a stoppage (laying aside the copy of Euripides's "Medea" he was reading), put out his head to inquire the cause, and immediately the soldiers struck off his head and hands. His mangled remains were carried to Antony, who had them fixed up on the rostrum from which Cicero had so often denounced him.

ARCHIMEDES.

Archimedes was born in Sicily 287 B.C., and killed at

Syracuse 212 B.C.

For the purpose of raising water out of the canals of Egypt, Archimedes is said to have invented a machine which bears the name of his screw. The mounts and bridges of the Nile are attributed to his inventive genius. He is described as the first to determine the exact space bounded by a curve line. He also states the proportion between the circumference and diameter of a circle, and gives the ratio as between 3.1428 and 3.1408. He greatly admired his discovery of the lever, and once said: "Give me a spot to stand on, and I will move the earth."

Syracuse, after the death of Hiero, became the prey of contending factions; the city was seized by Marcellus and Appius, and Archimedes's mechanical skill was applied to its defence. At length the Romans gained the city, and plundered it on all sides. On seeing it approach to ruin, it is said that Marcellus wept. He also requested that Archimedes and his house might be saved; but this was disregarded by the furious plunderers. While they were plundering from house to house, Archimedes, unmoved by their violence, continued to contemplate a mathematical diagram. When a soldier burst into the room Archimedes refused to attend him till he had finished his demonstration. The soldier, with utter recklessness of the value of that great life, killed the philosopher on the spot. Thus perished one of the greatest philosophers of the world.

SOCRATES.

Socrates was born at Alopece, near Athens, 469 B.C., and

put to death 399 B.C.

His parents were of humble position in life, his father being a sculptor, and his mother a midwife. Socrates studied philosophy under Anaxagoras and Archelaus, eloquence he learnt from Prodicus, poetry from Evenus, geometry from Theodorus, and music from Damo. The name of Aspasia is also mentioned as a lady of intellectual accomplishments, to whom Socrates owed some of his education.

Socrates is said to have had two wives, one of whom, named Xantippe, Gellius describes as "an accursed, forward woman, always chiding by day and night." Her ill-humour has made her life immortal. According to Socrates himself, he married her to exercise his patience. When Alcibiades expressed surprise that he could live in the same house with so perverse and quarrelsome a companion, Socrates answered, "That being daily inured to her ill-humour at home, he was better prepared to encounter annoyance and injury abroad." In a dialogue with his son Lamprocles, he admits that Xantippe had domestic virtues; and, when Socrates was in prison, she visited him with her child, and manifested her sympathy with him in his sufferings.

Lucian remarks that Socrates was the only philosopher who obtained renown in military movements. In the struggle between Athens and Lacedæmon, he exhibited his valour and endurance. When he saw Alcibiades falling wounded, he advanced to defend him, and saved him. The prize of valour due to himself on that occasion he gave to Alcibiades. In a severe Thracian winter Socrates wore his usual clothing, while others were clothed in furs. He volunteered in a military expedition against the Bœotians, on which occasion, observing Xenophon lying wounded, he took him upon his shoulders, and carried him beyond reach of the enemy.

In another instance, the Athenians being totally defeated, Socrates was the last to quit the field, and assumed an aspect so determined, that those who were in pursuit of the fugi-

tives had not the courage to attack him.

Believing that morals could be better understood by acts than by words, he not only taught, but practised with the utmost fidelity, his views of truth and justice; and it was this that made him a man of influence and noble character, and so much superior to his predecessors, who contented themselves with the admiration of virtue, and the investigation of first causes and of the mysterious agencies by which they supposed themselves surrounded.

Fenelon, speaking of Socrates, calls him "the most virtuous and enlightened of the ancients;" and Cicero and our Lord Shaftesbury both speak of him as "the founder of moral philosophy." Socrates adopted the character of a moral philosopher, and took every opportunity of teaching his fellow-citizens wherever he met them. In the morning he visited places for walking and public meetings; at noon he appeared in the bazaar or exchange; the remainder of

the day he spent in those parts of the city most frequented. He sometimes addressed an audience in the Lyceum from the chair, whilst the audience were seated around him. He not only taught young men of rank and fortune, but sought disciples among artisans and labourers. His common method of teaching was by a series of questions, and to lead the persons he wished to instruct to deduce the truths he desired them to believe as necessary consequences of his own concessions. In his model questioning and convincing he did not display arrogance or superiority, for his constant profession was that "he knew nothing."

Our philosopher left no written account of his doctrines; but "The Memorabilia," by Xenophon, is considered a

reliable exposition of his views on many subjects.

According to Plato and Xenophon, Socrates inferred, from the mind and eye of man, that there existed a supreme God of intelligent omniscience; and that God, amidst successive changes, preserved the course of nature unimpaired, to whose laws all beings were subject. The soul of man he believed to be allied by its nature with the Supreme, and

that it would exist after death with the gods.

He considered the reverence of a good man the best offering he could make to the gods, and when he prayed to them he asked for "such things as they considered good and useful." He would no sooner think of praying for riches and honours than of petitioning for an opportunity to rush into battle. The effect of his teaching, which proved beneficial to his country, was attended by disaster to Socrates himself. The boldness he displayed as Senator, and his manly opposition to political and every other corruption, made him a marked man. The insults offered to the popular superstitions by two of his former professed disciples were carefully and constantly kept before the eyes of the Athenians, who were extremely jealous of their superstitious ceremonies.

THE MARTYRS OF PROGRESS.

PART II.

L'ANNÆUS SENECA.

L'Annæus Seneca was born 6 a.c. in Spain, and was taken to Rome in his infancy. His father taught him eloquence, and he studied philosophy under the Stoics. He was himself, however, inclined more to the doctrine of Pythagoras; but the remonstrances of his father, and the threat of Tiberius against the Jews, who abstained from certain meats, caused him to abandon the system of Pythagoras. He wrote several works, which are distinguished for the pure morality and virtue they advocate. Indeed, St. Jerome placed him among the early Christian writers—so greatly esteemed were his writings in the early ages.

Being (falsely, it is believed) accused of an intrigue with Iulia Livilla, the daughter of Germanicus, caused him to leave Rome; and he was banished to Corsica by Claudius, where he remained in exile about eight years. After the disgrace and death of his accuser, Messalina, he was recalled from exile by the influence of Agrippina, who had become the wife of Claudius. Seneca became the educator of her son Nero, who afterwards became emperor. Nero, however, at length, forsaking the precepts of his master, threw off every restraint of morality, which rendered the life of Seneca insecure. Seneca, accordingly, desired permission to retire to solitude, which was refused by Nero; but Seneca kept at home on the plea of bad health. the conspiracy of Piso, Seneca's name was mentioned by Natalis, without any charge that could criminate him; but Nero took advantage of the opportunity to issue an order for Seneca to destroy himself. When the messenger arrived from this murderer of his own mother, and some of his best friends, Seneca was seated at the table with his wife Paulina. He received the message with calmness and firmness

becoming a philosopher, and remarked that such a message he might long have expected from such a man. A vein in his arm was opened; but it bled so slowly that he was induced to apply to his friend Annæus for a dose of poison, which, however, his limbs being chilled, did not affect him. He afterwards caused himself to be placed in a hot bath. This proving ineffectual, and the soldiers becoming clamorous, he was carried into a stove, and suffocated by steam. His body was afterwards burnt without pomp or funeral ceremony. On the centurion refusing him to make his will, Seneca called on his friends to take a pattern by his He reasoned against their tears and wailings, asking if they had not learnt better to withstand the violence of tyranny. He embraced his wife, and urged her to bear his death by contemplating his life of virtue. Paulina would not be consoled, but insisted on dying with her husband; she called for the aid of a minister of death, who opened both their veins at the same time; but hers was bound up, and the bleeding was stayed. She retained with reverence and esteem the memory of her husband, but died a few vears after him.

ORIGENES, COMMONLY CALLED ORIGEN.

Origen was born 185 A.C. at Alexandria, and died at

Tyre 254.

This Father of the early Christian Church was the son of Leonidas, who suffered as a martyr in the reign of Severus; and it is said that, had not his mother prevented it, the zeal of Origen would have led him to share his father's fate. To support his widowed mother and his orphan brothers, he became a grammatical tutor. then was appointed Professor of Sacred Literature at Alexandria, and commenced preaching and practising extraordinary mortifications and asceticism, which gained him many disciples.

He then began his "Hexapla," which first gave the idea of Polyglot Bibles. Having taken the order of priesthood, Demetrius of Alexandria was displeased. The Bishop pretended to have discovered errors in the writings of Origen, and prohibited his preaching, and banished him. the Christians were persecuted by Maximin, Origen sought refuge in Athens, and corrected the erroneous belief of the Bishop of Bostra relative to the pre-existence of Christ. He also assisted in the correction of the Arabians, who held the heresy—now popular—that the soul dies with the

body, and will rise again at the Resurrection.

Origen himself, however, does not appear to have entirely escaped the charge of heresy. One of his most formidable heresies was his belief in the finite duration of future punishment, and the ultimate salvation of the devils themselves. These heresies, it is said, brought great scandal on the Church. He applied the allegorical method to the Scriptures, as the Platonists did to mythology.

In the Decian persecution (250) Origen suffered imprisonment and torture, and some say martyrdom; but it is more generally believed that he died a natural death in 254.

ARIUS.

Arius, a native of Cyrenaica, Africa, was born in the

third century, and died 336.

He was a Presbyter of the Church of Alexandria, and was distinguished for personal beauty, ascetic habits, extensive learning, and eloquence. He is known chiefly as the founder of the sect of Arians.

Arius maintained, in contradiction to Alexander, that Christ did *not* exist from all eternity, but that he was created out of nothing before the universe by the will of the Father, and could only be called God by his participation in extraordinary powers. He held the doctrine of three persons in the Deity to be erroneous.

In 321 Alexander cited Arius before a synod of one hundred bishops, and declared his opinions heretical, and excommunicated from the Church, and expelled from the

city Arius and all his followers.

In 325 Constantine assembled 318 bishops at the Council of Nice, to settle the important question raised by Arius. Here it was decided that Christ was consubstantial with God, and the Nicene Creed was signed and established as the orthodox belief. At the same time the doctrine of Arius was condemned, and himself banished to the province of Illyricum. An edict followed this, in which his followers were stigmatised as Porphyrians, his writings were ordered to be burnt, and capital punishment was declared against all who would not deliver up his writings.

Several attempts were made to restore him to the Church, but this was opposed by Athanasius. Constantine and others appointed a day for his solemn reception into the Church, but on the preceding Sunday Arius died. Gibbon says that those who desire to know the real cause of Arius's death "must make their option between poison and miracle." Whatever may be thought of his views, he was a man of integrity, a firm believer and advocate of what he deemed the truth.

PETER ABELARD.

Peter Abelard was born at Palais 1079, and died in the Priory of St. Marcellus 1142.

No work on biography can be said to be complete that does not give some account of Abelard, and his beautiful

and singular, beloved Heloisa.

Abelard was of noble family, and his father intended him to become a soldier; but his love for learning was so great that the intention was not carried out. Abelard was first the pupil of Roscelinus, the founder of Nominalists, and afterwards entered the University of Paris. At Paris he soon excited the jealousy, and became the superior, of his master, and set up a teacher on his own account. Under a second master he soon excited a similar feeling of jealousy.

As a teacher of theology and philosophy at Paris, he was visited by scholars from all parts of France, and from Spain, Germany, Italy, and England. At the height of his reputation for science, he determined to practise somewhat in the "art of love." Accordingly, in embuing the mind of Heloisa with his philosophy, he at the same time inspired

it with affection for himself.

Notwithstanding the authority of the Church respecting celibacy, the result of Abelard's affection for Heloisa was the birth of a son, to whom they gave the name of Astrolabius. Previous to this event they were unmarried, seemingly because Abelard's oath would not permit it, and Heloisa's views were opposed to it, as she believed that the bonds of love were stronger without the additional security offered by the Church. They were afterwards privately married; and the old gentleman insisting on publicity being given to the affair, produced the most melancholy results. As Abelard resisted this request of his father, the

"old brute" hired a number of ruffians to break into the chamber of Abelard and deprive him of his manhood. Abelard and Heloisa then separated; but the affection of the latter terminated only with her life, for after his death she daily offered up a prayer to heaven over the grave of

her departed husband.

Besides being unfortunate in his love, Abelard became again the object of envy among his contemporaries. They endeavoured to damage him by exciting the ecclesiastical authorities against his views on "the unity of God," something like Arianism. After an unfair inquiry, this book was condemned to be burnt with his own hands; he was also caused to read a recantation, and to be imprisoned. A second persecution against him was caused by his heterodox assertion that the founder of St. Denys of France was not Dionysius of Athens. For this outrageous offence he was denounced as "an enemy of his order and his country." So violent was the aspect of affairs that, to preserve his person from destruction, he was compelled to escape in the night to a convent in Champagne. there jealousy overtook him again, and he had to seek another asylum. He then fell into the hands of the holy and polite St. Bernard. He accused Abelard of heresy, of ensnaring souls, and called him an "infernal dragon," more dangerous than Arius, Pelagius, and Nestorius, and the "precursor of Antichrist."

It appears that the vengeance of the saint was aroused by Abelard's attempt to explain the Trinity by syllogisms. For this grave and immoral offence the Pope, without hearing any defence, on the motion of St. Bernard, condemned

Abelard to eternal silence.

The brave old Abelard, who never gave way, set off for Rome to remonstrate against this terrible sentence. On his way to Rome he called to see his friend, Peter, the Abbot of Cluni, who prevailed upon him to stay there. Being unable to resist the powerful opposition that was made to him, he produced a sort of declaration of faith, which gained him two years of private life, at the end of which he expired.

Some writers have spoken lightly of Abelard; but one who excited so much jealousy, persecution, and admiration

must have been more than an ordinary man.

Arnaldo de Brescia.

Arnaldo de Brescia was born early in the twelfth century.

at Brescia, in Lombardy, and died at Rome 1155.

He visited France, where he became a pupil of Peter Abelard. Upon his return to Lombardy he put on the habit of a monk, and began to preach several "new and uncommon" doctrines; particularly that the Pope ought, not to enjoy any temporal estate; that those ecclesiastics who had any estates of their own, or held any lands, were entirely cut off from the least hope of salvation; that the clergy ought to subsist upon the alms and voluntary contributions of Christians; and that all other revenues belonged to princes and States, who ought to dispose of them among the laity as they thought proper. In 1139 these opinions, as might have been expected, were decided to be "heretical" and "damnable" by a council of a thousand prelates.

Arnaldo, fearing the decision of this august body of divines, fled to Switzerland. On the accession of Adrian IV., Arnaldo returned to his native country, but found Adrian no more disposed to tolerate him and his sect than his predecessors. Adrian took advantage of some popular tumult, and compelled the heretical Arnaldists to leave the

city.

Arnaldo desired the re-establishment of the Roman Republic; he was an honest leader of the people, a man of irreproachable morals. Adrian IV. applied to Fredrick I. to have him placed in the hands of the Prefect of Rome, had him strangled at Rome, his body burnt, and the ashes thrown into the river Tiber, in 1155.

ROGER BACON.

Roger Bacon was born near Ilchester, in Somersetshire,

about 1214, and died at Oxford about 1292.

Bacon belonged to the Franciscan Order, and theology, having set itself in opposition to philosophy, he was grossly insulted and persecuted by his own fraternity. His microscope, with which he penetrated the secrets of nature, gained him the opprobrious title of "magician," and his brethren prohibited his lectures and writings.

In the sciences he was a great student, and made several discoveries. Dr. Friend describes him as the first who introduced chemistry into Europe. He discovered, or made

known, that awful instrument of destruction called gunpowder; and he appears to have had some knowledge of the telescope and of spectacles. He also gives a philosophical explanation of the rainbow being an appearance, and not a real thing. He was proficient in languages, and remarks that those by whom he was surrounded were miserably deficient. Their ignorance may be taken for granted, since they pointed to Bacon as "a subject of horror," "a magician," "a necromancer," with a view to get him destroyed. Bacon was accused of working by "supernatural means," and of being "leagued with the Devil." In close confinement, nearly perishing of hunger, he was kept several

years, until released by his friend Clement IV.

At the request of Clement he wrote his celebrated "Opus Majus," which, however, remained in manuscript 500 years. Some passages in this work show that Bacon's sentiments were far in advance of his age, and are still before those of many who pretend to knowledge in the present age. He mentions four "stumbling-blocks" in the way of knowledge, and that in his time there were prevalent "a thousand falsehoods for one truth." This being the state of things, he says: "We must not stick to what we hear and read, but must examine most strictly the opinion of our ancestors, that we may add what is lacking, and correct what is erroneous. We must, with all our strength, prefer reason to custom, and the opinions of the wise and good to those of the yulgar." We must not hold by that which has been "common," "usual," "laid down," etc. Though all the world be guided by such a rule, "let us hear freely opinions contrary to established usage."

On the death of Clement, Bacon's superior officer, Jerome of Ascoli, to show his authority and superlative cruelty, obtained an order from Nicholas III. to interdict his works, and to consign Bacon himself once more to the dungeon, where he remained ten years, subsisting on bread and water. The charge of heresy put forth against him by the theologians, and confirmed by Rome, was the produce of ignorance

and bigotry.

When Jerome himself became Pope, it is said that Bacon's appeal for liberty was met by increased vigour and closer confinement. During all these years of suffering and starvation he was deprived of the means of investigating and experimenting, and bore all this courageously for the sake of knowledge, truth, and humanity.

Bacon was in his sixty-fourth year when he was summoned to Paris for trial, and although he made many efforts to gain his liberty, they all proved ineffectual. Some say he died in prison, but it is generally believed that he was released by the intercession of some powerful nobles.

ALIGHIERI DANTE.

Dante was born at Florence, May 8th, 1265 A.C., and died of grief at Ravenna, in September, 1321 A.C.

He studied at Florence, and also, it is said, at Bologna and Padua. Disraeli, in his "Literary Character," tells a story of him from Poggius, "that Dante indulged his meditations more strongly than any man he knew; for when deeply busy in reading he seemed to live only in his ideas. Once the poet went to view a public procession; having entered a bookseller's shop, and taken up a book, he sank into a reverie; on his return he declared that he had neither seen nor heard a single occurrence in the public exhibition which

had passed unobserved before him!"

In 1291 he married Gemma Donati, a lady of noble family, but of violent and ungovernable temper. Boccaccio, however, in alluding to Dante's banishment, relates that Gemma took great care to provide for the children. Dante, the earliest poet of modern time worthy of being classed with Greek and Roman authors, is known chiefly as the author of a most extraordinary poem, which is a description of his vision (in which the writer is conducted through hell, purgatory, and paradise), and called by his countrymen, "Divina Commedia." In the dedication of the "Inferno," he tells us that the whole poem is to be considered as an allegory of man, in his capacity of meriting reward or punishment. Dante is described as the first who introduced angels and devils into poetry.

He was a great lover of civil liberty, and a determined enemy of ecclesiastical corruption. In his Hell he represents Nicholas III. with his head fixed downwards, and his heels burning in flames of fire. In his Purgatory he ascribes the wretched state of the Christian world to the union of the temporal and spiritual power in the Pope, and represents Adrian being purified from the sin of avarice; St. Peter is severely condemning his successors for covetousness, and all the host of heaven are also full of indignation at

Dante, however, seems to have been a Roman Catholic in superstition, although a sincere hater of abuse in Church, for he consistently places (in his poem) the heretics in Hell, and the believers in Paradise. His political views are expressed in his work concerning Monarchy. God is one. The universe is an idea of God's, and is, therefore, one. God is the source of all; all, therefore, partakes of his nature. Man is the most excellent product of creation. As such he must tend continually to a state of perfectness, and strive by holiness and knowledge to attain a likeness to, if not a union with, God. Individual man is too short-lived to accomplish this; but man has an historic and collective being, as well as an individual life. Humanity, aggregate man, is long-lived and indefinitely progressive. Humanity, like God, is one. Harmony, and as a consequence association, are the condition of co-working unity. Unity must be embodied and represented. To give embodiment to human unity, there must be an outer formgovernment and an inner spirit-law. A people, aggregated together into an organic whole, by a general agreement under the same laws and government, constitutes a nation. Law and government, however, must have means of enforcement, and hence arises the need of an imperial or other head; not as a superior to, but as an agent of, the law; as the agent of the people, the chief administrator of the law. and the representative to other nationalities of the will of the aggregated and incorporated citizens of the State over which he bears rule. Dante's "Monarchy" was burnt after his death, at Bologna, by order of the Papal legate.

In 1300 Dante was the chief of the Priors, who were the supreme authority in the State, which office placed him amidst civil strife. While on a visit to Rome as ambassador to the Pope on behalf of his fellow citizens, his enemies in 1302 contrived to have him fined 8,000 florins, and condemned to two years' banishment. In a second sentence

he was condemned to be burnt alive.

Dante was a bold man, and joined the side of the Emperor versus the priests and the Pope. The party he espoused (the Bianchi) being vanquished by its antagonists (the Neri), his property was confiscated, and he was banished from his native land, which he dearly loved. He severely felt his banishment, but never returned to Florence to reside. Dante's courage, inspired by conscious innocence, would not permit his return, except on honourable terms, and thus

he died an exile in a foreign land. He was crushed by the ruins of the faction he embraced; and while his bones were crumbling into dust, the Pope excommunicated him, and desired that his remains might be scattered to the winds,

that none should know his eternal resting-place.

The Florentines discovered their loss after Dante's death, and desired to have the relics of this great man whom they robbed and banished in his lifetime. Among other applicants to Leo X. for the dust of Dante, was one from a great man, in the following words: "I, Michael Angelo, sculptor, address the same prayer to your holiness, offering to make for the divine poet a monument which shall be worthy of him." All the supplications were of no avail; but Angelo has recorded his admiration of the "divine poet" in the following sonnet:—

"ON DANTE.

"How shall we speak of him? for our weak eyes Are quite unfit to bear his dazzlings rays. 'Tis easier far to blame his enemies, Than for our tongue to speak his slightest praise. For us did he explore the realm of woe; At his approach high heaven did soon expand Its lofty portals, though his fatherland Refused to ope her gates. Yet thou shalt know, Ungrateful country! e'en in thine own despite, That thou hast quickened best thy Dante's fame. Virtue opprest dost then shine out most bright; And brighter shall his glory therefore be For suffering so, of all, unguiltily. Hence in the world there lives no nobler name."

The Florentines raised a monument to his memory, which was opened to the public in 1830.

JOHN HUSS.

Huss was born at Hussinatz, in Bohemia, about 1370,

and died at Constance, 1414.

He was the son of poor parents. After receiving some education in the University of Prague, he was ordained a priest in 1400. He was the first opponent of transubstantiation, and defender of Wycliffe, whose tenets he adopted and boldly advocated from the pulpit. He preached against Pope, purgatory, and indulgence. The Archbishop of

Prague accordingly denounced his views as "heretical." Huss, being confessor to Sophia, the Queen of Bohemia, obtained the support of the king; but the heads of the university proclaimed that whoever taught Wycliffe's views should be expelled.

The German students then repaired to Leipzig, to a

university provided by the Elector of Saxony.

Huss, then becoming Rector of the University of Prague, taught his heretical views, and had the works of Wycliffe translated into Bohemian. No sooner had they appeared than the Archbishop had them burnt, and excommunicated all who professed to believe in them. Huss being dismissed from his sacred office, the people assembled to hear him in houses and fields. The people thus taught became disputants and partisans, and ultimately caused their leader to be summoned by Pope John XXIII. "to appear and answer" at Bologna certain charges made against him; but, as he did

not appear, he was excommunicated.

He then retired to his native village. After the death of the Archbishop, Huss again appeared at Prague, and opposed a Papal bull. He then received another "invitation" from the Pope, but refused to notice it. In 1414 the Council of Constance called on him to appear before them. Huss having received a "safe conduct" from Sigismund, he went; but immediately on his arrival was arrested, and condemned as a heretic. As Huss refused to retract his heresies, the Council handed him over to the magistrate, who, by an order from the emperor, had him burnt alive. It has been urged that the Council merely "handed him over to the secular arm," which meant death, or what? When in the flames he displayed such admirable fortitude that even his enemies were moved to reverence him.

Thus died the great reformer and martyr, John Huss, a man of irreproachable life, full of courage and sincerity. The cruel death of this great man is an everlasting stain on the memory of Sigismund and the Council of Constance.

GEOFFREY CHAUCER.

Geoffrey Chaucer was born at London 1328, and died there October 25th, 1400.

He was educated at Cambridge and Oxford, and lived a considerable period at the Court of Edward III. Two

large works he wrote while at college, and many after he left it. Among the latter we need only mention his name in connection with the charming Canterbury Tales. Several writers give an account of Chaucer's sufferings consequent upon his espousing the tenets of Wycliffe, and his writing to expose the ignorance and vices of the clergy. They state that he was compelled, to escape from his enemies, to fly to Hainault, and thence to Zealand; and that, on his return, in a state bordering on starvation, he was imprisoned in the Tower, until released by his making some disclosures to the Government. This story, however probable, is contradicted by Sir H. Nicholas, who says that Chaucer, during his recorded exile, regularly received his pension from Government. It seems certain that he did suffer adversity and persecution through his attachment to the causes of John of Gaunt and Wycliffe, whatever truth there may or may not be in the story of his imprisonment and exile.

SIR JOHN OLDCASTLE (LORD COBHAM).

Sir John Oldcastle was born in the reign of Edward III.,

and died in 1417.

He obtained the title of Lord Cobham by marrying a daughter of Lord Cobham. He distinguished himself in the French military movements of Henry IV. and V., and is described as displaying great talents for the cabinet and the field. He was witty in conversation, and possessed of great learning. In the early ages of the Reformation from the Church of the Pope he drew up a number of articles against the vices of the priests and the spiritual power of the Pope. Having examined the writings of Wycliffe, he became a convert, transcribed his works, and maintained a number of men to preach the doctrines contained therein.

The Archbishop of Canterbury summoned him; but he did not appear, and was consequently excommunicated, and sent to the Tower, whence he escaped into Wales. To secure his person, the priests got up a report of a pretended conspiracy against him. After having offered 1,000 marks for his head, they succeeded in capturing him in four years, and, without any attempt to justify their proceedings, hung him in chains on the gallows at St. Giles, London; and, placing a fire underneath him, they roasted him alive in

December, 1417. Thus perished "Cobham the Good," the first author and first sufferer among the nobility in the cause of freedom in religion.

NICOLAUS COPERNICUS.

Nicolaus Copernicus was born at Thorn, in Prussia, in January or February, 1472, and died May 23rd, 1543.

He was educated at the University of Cracow, and afterwards went to Italy to receive instruction. He passed several years at Rome, where, in some official capacity, he gained a considerable reputation by giving public instruction. It was there also that he made his first astronomical observations. On his return to Prussia, a few years after, his uncle gave him a Canonry in the Church of Frauenburg. After this he appears to have occupied his time usefully in three ways—by devoting himself to his clerical duties, administering medical advice to the poor (being an M.D.), and by pursuing his astronomical researches.

He was eminent as an astronomer, and adopted and improved the Pythagorean, Ptolemaic, and other systems, which made the earth the centre, and partially indicated some of the motions of the heavenly bodies and the earth. He puts forth his views, wishing them to be considered as hypotheses only, as were those of the ancients, into which he had carefully and greatly investigated, especially regarding the motions of our own globe. He placed the sun in the centre of the universe, and all the other bodies "fixed in crystal spheres," performing circular motions around it, or a compound of uniform and circular motions. Copernicus is ever, and chiefly, to be remembered for his theory of the variation of the seasons, which he attributes to the continual parallelism of the earth's axis, the procession of the equinoxes, and the station of the planets. His system met with great hostility, and its author was satirised on the stage of Elburg. In consequence of the "apprehensions" that prevailed regarding the "novelty" of his opinion, he was compelled to keep his work in manuscript till about 1541. A remarkable preface to his work says that no one should expect anything certain from astronomy, since that science can afford nothing of the kind. Reference is also made to the approval of a cardinal and a bishop, and it

represents the work as not maintaining the motion of the earth. These and other strangely-invented precautionary steps were taken to avoid the opprobrium of the ignorant and bigoted, and probably the Inquisition. This work, however, did great service in the way of overturning the authority of Greek and Hebrew Scriptures in matters of science.

Copernicus, after many years' delay, just lived to publish his work; but no sooner had a copy been sent to him than he was seized with a violent effusion of blood, which put an end to his life. His friend, alluding to the melancholy event, says that the book arrived, a complete copy, on May 23rd, 1543, and that Copernicus saw it and touched it, but did no more, for he died a few hours after.

Copernicus, although mistaken in some things, and considerably behind his successor Galileo, not possessing his remarkable talents for experimenting, was a great and original thinker, indulging in freedom of thought to a remarkable extent, in spite of the authorities by which he was surrounded in the age in which he lived. He was a great mathematician, and a sincere lover and seeker of truth regarding all things in the heavens and the earth.

SIR THOMAS MORE.

Sir Thomas More was born in Milk Street, London,

1480, and died July 6th 1535.

Thomas was sent by his father Sir John to be educated in St. Anthony's school, and afterwards to the Archbishop of Canterbury. He also studied at Oxford, where he wrote his first poems, and formed an acquaintance with Erasmus. After leaving Oxford he distinguished himself in legal studies, and obtained considerable practice. In the reign of Henry VII. he was considered one of the most eloquent and important men, and his services were sought in all important legal transactions that occurred in the courts of law.

Being made a Member of Parliament, More opposed a grant of money to the king, which so enraged his majesty that, had not death removed Henry, More must have quitted his country.

On the accession of Henry VIII. More became once more an important man. The king was so attached to him that he would spend a day together with him at his house. In 1521 he made Sir Thomas More Treasurer of the Exchequer; and, the second year after, Speaker of the House. In this capacity he offended Wolsey, but still retained the friendship of the king, who in 1529 made him Chancellor.

At the termination of his Chancellorship, in 1532, More was surrounded by enemies, and the friendship of Henry was soon numbered with things of the past. Henry desired to form "an alliance" with Anne Boleyn, to do which he required the assistance of Sir Thomas. More, being a sincere and devoted member of the Church of the Pope, could not sanction an act that was denounced by so great an authority. This rendered it necessary that Henry and his old favourite should no longer be united; consequently More retired from office. Sir Thomas was soon after set down as an accomplice with Elizabeth Barton; but from this he escaped.

In 1533 a law was passed making it "treason" to write, publish, or say anything to the "prejudice" of Henry's marriage with his new wife; and every person was called

upon oath to sanction and defend this law.

In 1534 More was summoned before the commissioners to take the oath, but he refused, and was, consequently, committed to the Tower, where he remained thirteen months. During his confinement all attempts to alter his decision, and to get him to acknowledge the supremacy of "the Defender of the Faith," were entirely fruitless. He was accordingly tried for high treason, and condemned to be hanged, drawn, and quartered, and his head to be stuck on a pole on London Bridge. He was beheaded July 6th, 1535.

An old writer says: "Sir Thomas having occupied so eminent an office, and formerly being so very intimate with the king, his gracious majesty ordered him to be 'merely

beheaded!""

Judging from the sentiments contained in his letters, Sir Thomas must have been an amiable and a faithful friend, a loving husband, an affectionate father, and in other respects an estimable and benevolent man. There can be no doubt that his sincere regard for integrity and truth ultimately caused his death, and such enabled him to meet it with cheerfulness and without fear. The characteristics of his mind are shown, supposing he expressed his own real opinions, in his "Utopia," which is a description of a

model commonwealth, where private property shall not exist to occasion the labourer to suffer or deprave the minds of those who live on his labours.

Erasmus, who was a visitor of Sir Thomas, describes his house as "like the academy of Plato," where all was order, industry, and cheerfulness.

Ulricus Zuinglius.

Ulricus Zuinglius was born January 1st, 1484, at the

village of Wildhaus, and died October, 1531.

This celebrated Swiss reformer, whose name is sometimes written Ulrich Zwingli, was the son of a respectable peasant, who rose to the office of chief-magistrate of his district. Young Zuinglius, being of a studious disposition, was sent to the Universities of Basle and Vienna, and received the degree of M.A. After becoming qualified, by much reading and study, he was elected minister at the chief town of the Canton Glaris. Through gaining considerable knowledge of the New Testament and of Church history, he early in life began to preach the most enlightened doctrines of the Reformed Religion. Even in his age, when the slightest attempt at preaching common sense was considered revolutionary, he taught in his sermons doctrines that reflect credit on his head and heart. He proclaimed his conviction that "virtuous heathens" and "good men" of all kinds, who acted in accordance with the dictates of knowledge and conscience, would receive the reward of final happiness. In this and other matters he was far before his time, and his enlightened views are even now several centuries in advance of the English priests and clergy.

In the first volume that he published, "Observations on Lent," he expressed his liberal views about the necessity of "fasting and keeping" particular days of the week and year. These views were, of course, "dangerous to society," and especially so to the Church, and accordingly the Bishop of Constance instructed the clergy "not to permit its ordi-

nances to be infringed."

In 1523 he was called up before the ecclesiastical and civil powers "to give an account of his heretical views." The result of this examination was beneficial to the people, for it led to the abolition of many superstitious and injurious practices in the Church.

His views began to take root in other countries besides that in which he preached, and produced great alarm amongst the clergy, which finally broke out into fierce and open hostilities. His "dangerous doctrines" had been the cause of churches being cleared of images and pictures, the mass being abolished, the suppression of the mendicant orders, and the establishment of a system of public instruction. The hostile feelings created by these innovations were repressed by the Treaty of Coppel, in 1529, but were soon after rekindled. Zuinglius, being appointed to accompany an expedition against the Catholics, for the purpose of exciting the men, met with a fatal wound in an engagement in which his own party was defeated. Some Catholic soldiers finding him still alive on the field, one of them cruelly killed him; and, by the order of a military tribunal, his body was burnt, and his ashes were scattered to the winds.

Thus perished, on the battle-field of liberty in religion, the amiable, philosophical, humane, and courageous Zuinglius,

in his forty-fourth year, 1531.

It is a source of unmixed pleasure to reflect on the life and works of this great man, who delivered himself from the superstitions of his age, and created a mental and moral reformation, the effects of which still live among his brave and distinguished countrymen.

RENE DESCARTES.

René Descartes was born at La Haye, in Touraine, 31st March, 1596, and died 11th February, 1650, at Stockholm.

He was a son of a noble family, and received his education from the Jesuits of La-Flêche. While there he formed an acquaintance with a monk, whose studies are supposed to have influenced him in the prosecution of mathematics and metaphysics.

Having joined the army in his twentieth year, he was present at the Battle of Prague. Like others, he fulfilled his duty as a soldier, but did not neglect his philosophical

studies.

An interesting story is told of his perceiving a group of people reading a placard in Breda, where he was then studying, on which was written a geometrical problem given out as a challenge. As a soldier he created some surprise by asking a professor, who happened to be standing by at the time, to translate it for him. Descartes, having procured the necessary information, told the professor (who was Principal of the College of Dort) that he would send him a solution of the problem early in the morning! After retiring from the army he visited nearly the whole of Europe. Thinking he would be better able the prosecute his studies of philosophy in Holland, he removed from France thither.

In 1633 he published "A Treatise of the World," and in 1636 "A Treatise of Mechanics." Some writers consider that he advanced the science of geometry as much as did Sir Isaac Newton after him. In his early life, it is said, he formed the intention of endeavouring to "unlearn" all that had been taught him at college, with the view of investigating the fundamental principles of human knowledge.

The influence of Descartes's labours was great in his lifetime, and is generally believed to have had very considerable effect even to the present generation.

He was the victim of horrible persecution, and the Church rose up to do battle against his "heretical" philosophy. Like many before and after him, he was accused of Atheism. It was proposed to burn him on an eminence in Utrecht, in an extraordinary fire that might be seen by the inhabitants of the seven provinces. In the midst of his dangers and the hostility of bigots, Christiana of Sweden offered him a resting-place.

GIORDANO BRUNO.

Giordano Bruno was born at Nola, in the kingdom of Naples, about the middle of the sixteenth century.

He belonged to the Dominican order; but, having expressed some doubts about some of the Romish dogmas, he had to run away from his convent. He spent two years at Geneva, but there incurred the condemnation of the Protestants, owing to his scepticism of their doctrines. He then went to Paris, where he attacked the doctrines of the Aristotelians. Having made enemies both in the University and the Church, he visited England in 1583, where he gained the friendship of Sir Philip Sidney, to whom he dedicated his work against Rome. During the two years he was in England he visited Oxford, and held discussions

with the learned men of the University. He also visited Germany, where he was invited to become a follower of Luther, an invitation which he declined. He afterwards returned to Italy. Being arrested at Venice, he was transferred to the arms of his opponents in Rome in 1598, where he was kept in the prison of "the holy office" for two years. The Inquisitors spent their time in vain attempts to make him recant his heretical opinions. Finding his conversion by argument too much for them, they passed sentence upon him as "a confirmed heretic;" and eight days after (February

17th, 1600) he was burnt alive.

Tennemann, in his "History of Philosophy," describes Bruno as "the most interesting thinker" of his age, and as being endowed with "a comprehensive and penetrating intellect." He was a great classical scholar, and to this Tennemann attributes his teaching Pantheism—that is, the system "of the Eleatæ and Plotinus purified." God, in his system, is the substance of all things and the cause. He is described as holding the idea that the absolute is conscious, and that what takes place in the universe is intended to take place. God influences every atom of the universe, as well as the whole of it. He makes the universe a living being, and the eternity of its existence a necessity, it being infinite and imperishable. It fashions and forms itself in a thousand ways, without any limit. His system has been described as Atheism, but everything opposed to theologians and the Church received that name in all ages. The explanation of the difference is that he affirms only one eternal existence, which leaves no room for other existences affirmed by the clericals.

ANNE ASKEW.

Anne Askew was born at Kelsey, Lincolnshire, about 1521,

and died at London 1546.

Anne was the daughter of Sir William Askew, and was married to a wealthy member of the Roman Church. In Ballard's "British Ladies" she is described as one of the early martyrs to the Reformed views of religion. By reading the Scriptures, and comparing them with the new doctrines, she became a convert. This change in her religious views so enraged her husband, who was not only a Catholic, but a violent and bigoted one, that he turned her out of the

house. She then went to London, where she was befriended

by Queen Katherine and others.

In 1545, being accused by her husband and some priests, she was arrested and imprisoned on the charge of heresy. She was repeatedly examined by the Bishop of London and others, on which occasions she displayed considerable ability. In answer to a question put by the Lord Mayor, "Whether the priests cannot make the body of Christ?" she boldly replied, "I have read that God made man, but that man can make God I never yet read."

Although allowed bail, she was soon brought up again, and imprisoned in Newgate and the Tower. Bishop Bonner tried in vain to persuade her to belie her conscience. With the view of ascertaining what ladies favoured her heresies, she was cruelly put to the rack, and, on her refusing to answer the Chancellor Wriothesley and Master Rich, it is said they applied their own hands to strain the rack, and with such violence, that every limb in the body of the innocent victim was dislocated.

Such was the courage of this unfortunate woman that she sat on the ground reasoning with her cruel persecutors for two hours after this horrible punishment. Pardon was afterwards offered if she would recant; but she refused all such offers, and she was finally destroyed by fire. With admirable courage and fidelity she went to the stake July 16th, 1546, on which day, with four others, she was burnt alive in Smithfield.

JACOBUS ARMINIUS.

sacobus Arminius was born at Oudewater, Holland, 1560,

and died 1609.

By the assistance of a priest who was favourable to the Reformed Religion, he became a student at Utrecht, and afterwards at Leyden. Having greatly distinguished himself at Leyden, the merchants of Amsterdam sent him to Geneva to study under Theodore Beza. Having adopted the philosophy of Peter Ramus, he commenced teaching it. This being considered a great "innovation," he was compelled to quit Geneva. He afterwards renounced his Calvinistic views, and maintained that the merits of Christ extended to the whole human family. This again exposed him to great dangers, but the authorities of Amsterdam

protected him. He was several times troubled by his orthodox friends, and was summoned to the Hague to give an account of his doctrines.

These vexatious and violent proceedings brought on a disease that terminated his life October 19th, 1609. His

motto was, "A good conscience is Paradise."

Arminius, the leader of the Arminians or Remonstrants, was a friend of universal toleration, and maintained, as a fundamental principle, that men are responsible to God alone for their religion. Arminius appears to have desired the union of all Christians who were not idolators or persecutors.

Although violently assailed by his bigoted neighbours, he was a man of integrity; he was also candid, amiable, and sincere. After his death his views were accepted by the chief minds of Holland; among others was the celebrated Grotius. This sect was afterwards condemned by the Synod of Dort, and disgracefully persecuted under Prince Maurice.

Arminians still form a distinct sect in Holland, and

similar views are now popular in other countries.

THOMAS CRANMER.

Thomas Cranmer was born at Aslacton, Nottinghamshire, July 2nd, 1489, and died at Oxford March 21st, 1556.

The Archbishop of Canterbury, the son of respectable parents, was educated at a village school, and at Jesus College, Cambridge. At college he distinguished himself in the study of Hebrew, Greek, and theology, and afterwards, through his travels, in French, German, and Italian. At the age of twenty-three he committed the crime of matrimony, which cost him his fellowship. To particularise all the events of Cranmer's life would occupy too much space. He was the prime mover in the establishment of a new Church in England, which has been honoured by the State ever since. His discreditable acts in connection with Henry VIII. have been sufficiently exposed by the critics and enemies of the new religious order of priesthood. He sanctioned immorality, illegality, and cruelty; but the general intention of his nature was moderation, and sincerity of purpose appears in the majority of his actions. On the accession of Mary, Cranmer's influence ceased, and a com-

mission was given to the bishops to imprison Protestant ministers on the charges of treason, heresy, and matrimony. Cranmer was committed to the Tower on the charges of "treason against the Queen" and "disquieting the State." The year after this he was removed to Oxford Prison, and appeared at the famous discussion on the "Lord's Supper." At the conclusion of the discussion Cranmer was declared "an obstinate heretic;" in reply to this he said: "From this your judgment and sentence I appeal to the just judgment of the Almighty." He was then removed to prison; and it was decided that the charge of treason should be withdrawn, and that he should suffer for heresy, not by the axe, but by fire. In an hour of weakness he recanted his opinions, but afterwards he publicly declared he had published writings (referring to his recantation) contrary to the truth that he believed in his heart. In consequence of this confession of his untruthful recantation through fear of death, after enduring imprisonment and insult, he was led to the stake and burnt alive. While in the flames he held out the hand with which he had signed the recantation, and till his utterance was stifled exclaimed, "This unworthy hand!"

Tycho Brahe.

Tycho Brahe was born at Knudsthorp, Denmark, December 14th, 1546, and died at Prague October 24th, 1601.

Otto Brahe, the father of Tycho, descended from a noble Swedish family; but at the birth of his son was in such "straitened circumstances" that he proposed educating him for the military profession. Otto's brother requesting that Tycho should become his adopted child, the military proposal was abandoned.

While studying at Copenhagen, in 1560, Tycho's attention was first directed to astronomy by a total eclipse of the sun, which was expected on August 21st of that year, eclipses being in those days looked on as supernatural events which affected the destinies of individuals and

nations.

About his thirtieth year, a most fortunate epoch in his history, the King of Denmark erected a splendid observatory for him on the Island of Hven, at the cost of £20,000.

This celebrated residence and observatory of Tycho received the name of Uraniberg, or the City of the Heavens, on which Tycho expended nearly a ton of gold. As he kept an open and hospitable house, he was visited by many distinguished persons. Among others, there was our own King James, who, it is said, conducted himself in an exemplary manner, and manifested his gratitude to the astronomer by presenting him with a magnificent donation, and also a license to publish his works in England. The life of Brahe has been described as one of unmitigated pleasure till the year 1591, when the dark clouds of jealousy and ill-will perceptibly rose over him. His studies were calumniated by councillors, and his pension was grudged by the Treasury.

The feelings of hostility and envy of the courts and nobles who unwillingly tolerated his studies and pension were considerably fermented by certain physicians, who became extremely envious of his successful and gratuitous practice of "the healing art." Invalids, whose diseases resisted their medicinal skill, yielded to Tycho's treatment. They, having poisoned the mind of the court and the people by describing his studies as useless, &c., at length succeeded in depriving him of his canonry, estate, and pension. Being unable to keep up the establishment himself, and fearing the consequences of the adverse feeling created against him, he removed some of his instruments to Copenhagen. this two persons, entirely ignorant of astronomy, were appointed to inquire into the value of his discoveries and observations, and, as might have been expected, they declared "that his studies were not only useless, but noxious."

On the strength of their learned report, Tycho's observations and experiments were prohibited in the King's name, and an attack was made on his person, and his servants were injured in the affray. Tycho afterwards became an exile from "the City of the Heavens," in which he had spent so many harmless and useful years. The island was taken from the *noble*, and transferred to the nobility. The only traits that remained of the philosopher have been described in one sentence: "There is in the island a field where Uraniberg was."

Tycho made a large quadrant, which enabled him to make many excellent observations while on a visit to Augsburg. In 1572 he discovered a new star in the constellation of Cassiopea, which is one of the most interesting

phenomena in astronomy; it appeared to him larger than Jupiter, and rivalled Venus in her greatest brilliance. In 1598 he published a work on Astronomiae Mechanica, and dedicated it to the Emperor Rudolph, and at the same time he sent him a copy of his MS. catalogue of a thousand fixed stars.

As a practical astronomer, Tycho is said to have surpassed all observers. Knight says: "He showed himself a sound mathematician in his method for determining refraction, in his deduction of the variation and annual equation of the moon, and in many other ways." He made a great glass globe with internal wheel-work, by which he imitated the diurnal motions of the heavens, the rising and setting of the sun, and the phases of the moon.

He was, indeed, the inventor of a new, but erroneous, system of the world, and, though it did not succeed, had many followers. It should be also named that, unlike a philosopher ought to be, he was very superstitious with regard to presages, very positive, and impatient of contra-

diction.

One not uncommon occurrence in the life of scientific men happened to Tycho—viz., piracy. One Paul Witichins, a mathematician of Germany, once visited Tycho, and played the pirate with him, who explained freely his invention and method to him. Paul afterwards proceeded to put forth what he had learned from Tycho, and described it as his own.

Tycho's system places the earth stationary in the centre of the universe, while the sun and all the other heavenly bodies revolve around the earth. Sir David Brewster, from whom I have learned many of the foregoing particulars, says: "His theory was consistent with Scripture, and conformable to the senses, and found many supporters, notwithstanding the physical absurdity of making the whole universe revolve round the smallest planet."

JOHN KEPLER.

John Kepler was born at Weil, in Würtemberg, December 21st, 1571, and died at Ratisbon in November, 1630.

His education was hindered by the quarrels of his family and the diseases of his body. The quarrels with his mother

caused his father to emigrate, offended all her relations, and threw the whole of their domestic affairs into inextricable disorder.

In spite of adverse circumstances, John became a good mathematician, and gained the degrees of B.A. and M.A. He seems to have met with many disappointments in his speculations, for Sir D. Brewster says he spent a whole summer in fruitless speculations, and praying constantly to his Maker for success. His friend, Tycho Brahe, gave him some advice, which is of general application (especially if the student keep in view the correct definition of the term "causes"), "to lay a solid foundation for his views by actual observation, and then strive to reach the causes of

things."

Kepler's marriage was attended by trouble and vexation. His income was very small, and, his wife's being smaller than he expected, he was led into pecuniary difficulties, and, added to these, disputes with her relations. These evils were aggravated by religious persecutions of Protestants by Catholics, which compelled him to leave his country. He was afterwards, on his return, excommunicated by the Catholics for refusing their opinion of Jesus Christ. To support his family at this time he was obliged to make almanacks. While in this state of poverty he refused the Mathematical Chair at Bologna, rather than live in a country where his freedom of speech and manners might expose him to suspicion.

Regarding the eye as similar to the camera obscura, Kepler discovered that an image of an external object was painted in an inverted position on the retina by the union of the pencils of rays. He also explained the cause of long and short-sighted vision, and the power of accommodating the eye to different distances, and discovered a method of calculating eclipses. It is to Kepler we owe the methods of tracing the progress of rays through transparent bodies with convex and concave surfaces. He invented the astronomical telescope, which consists of two convex lenses. The three great astronomical truths known as Kepler's laws are: The elliptic form of the orbits; the equable description of areas; that the squares of the periodic times are proportional to the cubes of the mean distances from the sun.

In 1609 he published his "New Astronomy," containing his great work, "On the Motion of Mars," which has been described as the connecting link between Copernicus and Newton. In this remarkable book Kepler discusses the theory of gravity then held, and advances his own. He describes two bodies as having the power of attracting each other over a space in proportion to the mass of each (supposing them to be placed in space, and uninfluenced by the attraction of any third body).

His epitome of the Copernican system was prohibited by the Inquisition immediately after its publication in 1618; and his Kalender was publicly burnt by order of the States

of Styria.

Kepler escaped the flames of the faggot, but was often enveloped in the flames of domestic discord, and was often found merging into a state of bankruptcy, or linked in the

chains of adversity.

Sir Henry Wootton, when English Ambassador at Venice, found him, as he generally was to be found, "oppressed with pecuniary difficulties." He invited him to England, but Kepler would not leave his Continental home. In all his difficulties and poverty he used to declare he would rather be author of his books than owner of the Duchy of

Saxony.

In 1630 he made his last attempt to obtain his due from the Imperial treasury; but the attempt was fruitless, and the journey brought on a fever that terminated his life early in November. Delambre has expressed his opinion of Kepler in the following words:—"Ardent, restless, burning to distinguish himself by his discoveries, he attempted everything. All his attempts had not the same success; that was impossible. Those which failed seemed fanciful; those which have been more fortunate appear sublime."

No labour was too great for him; he would continue his calculations on one subject for four years; and in all his pursuits he displayed "that obstinate perseverance that must triumph over all difficulties but those which are insur-

mountable."

SIR WALTER RALEIGH.

Walter Raleigh was born at a farm called Hayes, in Devonshire, in 1552, and died in London, October 29th, 1618.

Raleigh was the son of a gentleman of ancient family, the spelling of whose name has considerably varied. The common method adopted by King James, Hooke, and others, is as the above; while Cayley, Sir R. Naunton, and Lord Bacon write it Rawleigh. Some old deeds have it Rale, and Ralega, and Sir Walter himself used to write it Ralegh. After the usual school education, he was sent to Oriel College, where "he was worthily esteemed a proficient in oratory and philosophy." Sir R. Naunton, speaking of his position in early life, says: "He was well descended, and of good alliance, but poor in his beginnings." Lord Oxford called him "a Jack of an upstart." The same lord, referring to Raleigh's promotion and Essex's execution, remarked that "when Jacks start up, heads go down."

At college he was successful in learning "far beyond his age," but his active disposition and martial ardour soon put an end to his aspirations for learning. In 1569, in company with other noblemen, who in his time went to study in the schools of Mars the art of warfare, he went to France for the purpose of preparing himself to assist the Protestants (or Huguenots), who were at that time greatly oppressed. How he escaped the dreadful massacre on St.

Bartholomew's Day is not known.

The generality of noblemen who visited France are said to have "ruined their fortunes, constitutions, and morals." Not so Sir Walter, who returned, at the end of five years, "the best bred and most accomplished man in England."

In 1578 he went out with an expedition to North America. but returned the following year, and soon after offered his services to suppress an attempted rebellion in Ireland. 1584 he again visited America, and discovered a place which was called, in honour of the Virgin Queen, Virginia. grand issues of this expedition were the importation of the potato into England-which was afterwards successfully cultivated on his estate in Ireland—and the importation of tobacco.

A well-known story is told, in an old number of the Gentleman's Magazine, of his first introduction of the narcotic weed. Sir Walter, having seated himself in a chair to take a "quiet pipe" after dinner, was unceremoniously disturbed by the alarm of "Fire! fire! the master's afire!" and, before he could extricate himself from his perilous position, the horrified servant precipitated a pailful of water in the face of his respected employer.

Several stories are told of his connection with the court. One day, walking with the Queen Elizabeth, she came to a spot of mire that obstructed her course; whereupon Sir Walter threw down his cloak for her majesty to walk on! The sacrifice of this one *cloak* is said to have gained him many a *good suit*. He seems from this time to have become a favourite, and, some say, with justice, since "whatever he received with one hand, he bestowed it in acts glorious to the nation with the other." When the famous Armada appeared in the Channel, Sir Walter was one who volunteered to assist in defeating the enemy.

On his return from Portugal he visited his estate in Ireland, on which occasion Spenser, with whom he was acquainted, celebrated him as the "Shepherd of the Ocean," and acknowledged that Sir Walter first introduced him to the queen. Spenser also described to him the plan and design

of the "Fairie Queene."

With the view of getting Raleigh into disgrace with his royal mistress, Parsens, a Jesuit, published a document

charging him with "Atheism."

Soon after this Sir Walter got into disgrace by an amour with the daughter of Sir N. Throckmorton; and although he married the young lady, the queen shut him up in the Tower two months, and banished him from court. He soon, however, displayed extravagant signs of grief, and was liberated. While a prisoner he planned his design for discovering the Empire of Guiana. He visited it, and took possession, and afterwards wrote a description of his "Discoveries." This book of imaginary rather than real discoveries Hume describes as "full of the grossest and most palpable lies."

Being once more in favour at court, he gave up his discoveries, and devoted his time to the House of Commons; there he opposed all Bills that were contrived to oppress the middle and lower classes. He advocated principles that were far before his time, such as claiming the right of every man to employ his labour or capital how and where he chose—also the necessity of removing all restrictions on

the trade in corn.

These, of course, are some of the best traits of his character; others might be mentioned to his discredit, as in some things he resembled his brethren. The queen, however, is said to have paid due respect to every man's merit, and to none more than Raleigh's.

The death of Elizabeth was the fall of Raleigh. Till then he had served his country gloriously, and lived in it

happily.

On the accession of James I. a conspiracy was discovered, in which Lord Cobham (with whom Raleigh was intimate) was concerned. Raleigh, against whom his former friend Cecil had completely poisoned the king's mind, was examined before a council, and in 1603 was committed on the charge of treason.

His only accuser was Cobham, a man of disreputable character, who afterwards retracted all that he had said against him. Three were executed for this plot, and Sir Walter was reprieved. His wife, at her own solicitation, was permitted to become his fellow prisoner. On his trial his eloquence "in half a day changed the mind of all the company from extremest hate to greatest pity." Being committed, it is said that he attempted suicide. He remained a prisoner about thirteen years, during which period his ever-active mind created his great work. "The History of the World," which, Hume says, "is the best model of our ancient style."

Prince Henry greatly admired Sir Walter, and cheered and consoled him in prison, declaring that "no king but

his father would keep such a bird in a cage."

In 1615, some of his enemies being dead, Raleigh obtained his liberty through calling attention to his project for opening a gold mine in Guiana. This expedition was betrayed to the Spaniards, and defeated. A conflict ensued between the two nations' explorers; and, Sir Walter's son having lost his life at the town of St. Thomas, an English captain set fire to the town. Complaints reaching King James from the Spanish Court, Sir Walter, on his return, was arrested at Plymouth, and committed to the Tower. Tames wanted to marry his son into the Spanish Court, and to succeed in this he sacrificed Raleigh to the Spanish alliance. The jury being unable to condemn him in the absence of evidence, James sent a privy seal on October 8th, 1618, ordering him to be beheaded on the ground of his former conviction, although sixteen years after that event, thirteen of which he had been in prison, and from which he had been released by the king's own permission. Dr. Campbell, referring to this abominable act of James, says: "This judgment did not only murder Sir Walter, but subverted the constitution, and ought not to be looked on only as an act of the basest prostitution, but as the most flagrant violation of justice that was ever committed." R. Naunton, Secretary of State to James, says: "Sir Walter's trial was a disgrace to the judicature of the country." James's own published justification of his conduct specifies that the offence for which Raleigh was beheaded was that of "sacking the town of St. Thomas, and attempting to escape when he arrived in England," and not his former treason. Thus we find that, according to the king's own acts and words, he murders Raleigh for his acts of present hostility to Spaniards on the grounds of his past amity towards them. This abomination was perpetrated by a man who was the chief magistrate of England, the law of which contains the singular maxim, that, "the king can do no wrong." Of course he cannot so long as the people are sufficiently vicious to excuse him from obedience to all human laws.

On October 29th, 1618, Sir Walter was taken to the scaffold, where his manner was calm, dignified, and manly. He addressed the people, telling them that he feared death less than ever, and, as to the manner of it, he preferred it to dying in a burning fever. He desired to see the axe, and feel the edge of it, in doing which he remarked: "This is a sharp medicine, but a sure remedy for all evils." Being asked which way he would lay on the block, he replied: "So the heart be right, it is no matter which way the head lies;" and, giving the signal, he received the blow with the utmost composure.

Thus died the tall, handsome, and bold Sir Walter, a man of high forehead, long face, remarkable aspect, and "damnably proud;" one who distinguished himself as commander, navigator, discoverer, and statesman; a proficient in mechanics, and an author of no mean pretensions. Although deficient in many respects, he was affectionate, and beloved by those beneath him. "Take him all in all." he was one of the most remarkable men of his time.

NICHOLAS RIDLEY.

Nicholas Ridley was born at Tynedale, Northumberland, early in the sixteenth century, and died at Oxford, October

16th, 1555.

He was educated at Newcastle, Pembroke College, Oxford, and in France. His knowledge and capacity to preach gained him the attention of Cranmer; and his early sermons against holy water, images, transubstantiation, and other matters affecting the Church, made him a distinguished member of the New Church. He was greatly offended with Mary for having refused him permission to preach before her. After this, however, we find him interceding for Mary's right to be allowed her own religion. In one of his sermons before Edward VI. he "moved the young king's mind to works of charity," to provide houses for the poor—whether poor by sickness, poverty, or idleness. Having espoused the cause of Lady Jane Grey, immediately Mary acceded to the throne she placed Ridley in prison. He was committed to the Tower in 1553, and removed to Oxford in 1554, where he was allowed to attend a Convocation in company with two other prisoners, Cranmer and Latimer.

After some pretended free discussion of the "real presence" doctrine, amidst disorder and insult, the three reformers were declared to be defeated in argument, and to be "obstinate heretics." Unable to convince Ridley by argument, or to compel him to recant, his persecutors led him to the stake, hung gunpowder around his neck, and burnt him alive. As the fuel was slow in rising into a flame sufficient to explode the powder, the extremities of his body were gradually burnt from under him before he expired. Burnet describes Ridley as the most learned and eloquent of the early advocates of the new religion. At the same time as Ridley the honest, moral, simple, and zealous Latimer perished in the flames.

WILLIAM TYNDALE.

William Tyndale was born on the borders of Wales before

1500, and died 1536.

Of his parents nothing is known. He received a good education, and entered Magdalen College, Oxford. Here he embraced the tenets of Luther. Being a man of good moral character, and diligent in his studies, he was appointed Canon of Christ Church; but his principles soon became known, and he was immediately dismissed. He then obtained a degree at Cambridge, and became tutor to Sir John Welch. Again his heretical-religious views caused him to be reprimanded and dismissed. Failing to obtain assistance from the great people who promise and seldom perform, he took refuge in the house of a London Alderman.

Tyndale was a great reformer, and served his cause very

greatly by preparing, while with the Alderman, his celebrated translation of the New Testament. But a prophet being never received in his own country, and being unable to bear the ill-usage of the English clergy, Tyndale proceeded to Saxony. Here he was introduced to Luther and others. Thence he went to Antwerp, where, by the assistance of John Fry and a friar, he completed and published his work in 1526. The fifteen hundred copies printed were most of them sent to England, where they created terrible alarm among the clergy. Bishops Wareham and Tunstall, buying all the copies up "to burn them," enabled Tyndale to print another edition, which had a wider circulation.

He then took up his residence at Antwerp with an English merchant, but there was no abiding peace for Tyndale. Animated by the extraordinary spirit of the time, Henry VIII. and his council engaged an inhuman individual, bearing the name of Phillips, to betray poor Tyndale to the Procurator of the Emperor. They succeeded in capturing him, and in 1536, by the decree of the Emperor, Tyndale was tried, and condemned to be strangled and burnt. was led to the stake, and quietly submitted himself to be strangled; afterwards he was burnt. His last words were, "Lord, open the King of England's eyes." Thus ended the life of one of England's sons, a man of irreproachable manners and character, whose crime was the endeavour to induce the Christians who condemned him to peruse that divine book which they claimed to be the word of Almighty God, and the foundation of the only true religion.

PATRICK HAMILTON.

Patrick Hamilton was born about the year 1504.

Buchanan states that he was the son of Sir Patrick Hamilton, of Kingcavil, and his grandfather is said to have married the sister of James III. According to the prevailing custom among the nobility, young Hamilton was intended for the Church, and obtained an abbacy in his childhood. He seemed, however, destined to act a nobler part than that prescribed by his parents. In Hamilton's youth what were called heretical books were being circulated in Scotland, which presented Christianity in its earlier and purer form. Consequently, he formed views of religious truth of very different character from those which prevailed in the Church at his time. He was of a bold and questioning spirit, and freely spoke of the corruptions of the Church, and of the intolerant and grossly corrupt character of the clergy, beneath whose rapacity and oppression the people lived. He exposed their oppressive exactions and their scandalous lives, which excited the mind of the people against them, and drew down the suspicion of the clergy on himself. The long slumber of security in which the clergy had lived was now suddenly disturbed by the spread of the Lutheran heresy, which made it prudent for Patrick to leave his country. He therefore visited Wittenburg, at which place he was kindly entertained by Luther. After imbibing the new doctrines from the lips of Francis Lambert, of

Avignon, his faith became thoroughly fixed.

Full of the fervour and zeal of youth, Hamilton at once resolved to return to Scotland, to proclaim the new truths to his oppressed and benighted countrymen. Although his instructor portraved to him the dangers and perils of this attempt, he at once began openly to preach the doctrines he had learnt in Germany and from his Bible. But he soon had the honour of sealing his doctrines with his blood, for the clergy thought at once to put down the new "filthy heresy," and to strike universal terror into the minds of the people by sacrificing so illustrious a victim. With a view to get Hamilton destroyed, Archbishop Beaton challenged him to a pretended free conference. Thus in the power of Beaton, a pretext was soon found for throwing him into prison. On his trial he defended his opinion with modesty and firmness, but his persecutors were determined to put an end to his life. In 1528, and in his twenty-fourth year, with courage worthy of his cause, he perished in the flames. The last words of this noble man were: "How long, O Lord, shall darkness cover this land? How long wilt thou suffer this oppression of men?" Hamilton's family was suspected of heresy, and his brother Sir James, and his sister Catherine, were both denounced as heretics. Catherine, however, was prevailed on to recant, and she escaped.

DANIEL DE FOE.

Daniel De Foe was born in the parish of St. Giles's, London, in 1661, and died there April 24th, 1731.

Daniel's father, James Foe, was a butcher by trade, and his religious profession was Dissenter; and, accordingly, he placed his son in a Dissenting academy. Daniel seems to have been successful at school, for in after life he challenged one of his adversaries to translate any Latin, French, or Italian work. He says he was trained for the ministry, but he never appeared in that capacity. His first appearance as an author was in a pamphlet against High Church views. This, it is said, contained some reflections on certain ecclesiastics, who "obliged him to explain himself, and which he did clearly." "The Shortest Way with the Dissenters" gave great offence, and a reward was offered for De Foe's apprehension. The House of Commons decided that the book was "scandalous," and ordered it to be burnt by the common hangman. The following proclamation appeared against him :- "Whereas, Daniel De Foe, alias De Fooe, is charged with writing a scandalous and seditious pamphlet, entitled 'The Shortest Way with the Dissenters.' He is a middle-sized, spare man, about forty, of brown complexion, and dark brown hair, but wears a wig; a hooked nose, a sharp chin, grey eyes, and a large mole near his mouth." Here followed a statement of his business, and an offer of £50 reward to any one who would "hand him over." He was soon caught and imprisoned, fined and pilloried! While in Newgate prison, in order to set at defiance their abominable usage of him, he composed a "Hymn to the Pillory;" and for more than twelve months he was busily engaged in writing and concocting schemes for the future. By this imprisonment, he says, he lost about £3,500, and his wife was reduced to a state of starvation. By the advice of Harley (Secretary to Queen Anne) De Foe was set at liberty, and he then removed to Bury St. Edmunds. Six or seven years after he published another pamphlet, "What if the Queen should Die?" which got him into prison again. He was fined £800, or, in default of payment, to be sent to Newgate, and, of course, to Newgate he went; he was, however, soon released. His enemies, on the death of the Queen, surrounded him on every side: he drew up a defence, and quitted the field of politics. He then commenced the religious writing, and published his "Religious Courtship." Soon after followed his immortal "Robinson Crusoe." This story, at the time of its publication, as by many a reader

since, was believed to be "a true account."

Of course it will not be expected that even a list of his writings should appear in these pages, since, as Walter Scott said, Daniel "wrote on all occasions and on all subjects'—and it may be added that "he wrote well." He was a man of great industry, courage, and firmness—who served his country in the best manner he could, according to his conscience and abilities. In politics he was a Whig; in religion he was not only a Protestant, but a Dissenter, and one of the first order.

Hugo Grotius.

Hugo Grotius was born at Delft, in Holland, April 10th,

1583, and died at Rostock, August 28th, 1645.

He was the son of intelligent and respectable parents. who were descended from one of the first families in Holland. Every facility was given him to promote the inclination for study which he manifested early in life. He was instructed by Joseph Scaliger and Francis Junius. At Leyden, in his fourteenth year, he gained considerable notice by his knowledge of science and law. Having published a work on the freedom of the seas, in which he claimed the right of the Dutch as well as the Portuguese to trade in the Indies, and to fish in the North Seas as did the English, he came to London, and negotiated with James I. relative to the Greenland fisheries. James treated him with respect, but the English clergy were unable to appreciate any one holding liberal opinions on religion. On his return to Holland he found that country divided by two parties, Arminians and Calvinists-the latter being the more numerous, and supported by Maurice, Prince of Orange.

The liberal political and religious sentiments of Grotius naturally led him to defend the Arminian cause. Maurice had him and two compatriots arrested in August, 1618. The Synod of Dort having decided in favour of Calvinism, one of his friends was immediately put to death. In 1619 a very irregular trial of Grotius took place, which ended in

his being convicted of treason, and sentenced to imprisonment for life. His estate was confiscated, and he was confined in the castle of Loevestein. During the two years he remained in prison, Grotius wrote his work "On the Truth of Christianity." Grotius was voluntarily accompanied to prison by his wife, and to her tact and courage he owed his escape. Being accustomed to receive books in a chest from a friend, the officers, for some time, duly examined the vehicle. Finding no objectionable matter therein, they discontinued their search. This circumstance suggested the idea of emigration to Madame Grotius, who, having informed the governor's wife that she intended sending a large load of books away, to prevent her husband injuring his sight, persuaded Grotius to allow himself to be confined in the chest. At the appointed time Grotius entered the chest, and was conveyed therein down a ladder by two soldiers. One of them, thinking the chest extremely heavy, remarked in jest: "There must be an Arminian in it." Madame replied: "There are Arminian books in it." The man, not feeling exactly satisfied, told the governor's lady of the circumstances; but the lady, having been previously informed of the cause of the increase in weight, allowed it to pass unexamined. Madame Grotius, having learnt the safe arrival of the chest, confessed the whole affair. After being confined more closely for a short time, she was released, and had the pleasure of rejoining her husband a few months afterwards.

Grotius first sought an asylum in France, and was favourably received by Louis XIII., who granted him a pension, which was paid with extreme irregularity. The Protestant clergy, however, refused him communion, having embraced the same view as the Synod that condemned him. He also suffered annoyance from well-intentioned people of the opposite party, who were extremely anxious that he might embrace the Catholic faith. While resident in France, he wrote and published a work called "De Jure Belli et Pacis," which very greatly added to his reputation. Hearing of the death of Maurice, Grotius ventured once more to visit Holland; but his enemies were so powerful, and his friends so timid, that he was compelled to seek a place of refuge at Hamburg. He then became Swedish ambassador at Paris, which office he performed to the advantage of Sweden, and to his own credit, for about ten years.

In 1644 he returned to Sweden; but, being disappointed,

and suffering from the climate, he resolved to visit Lübeck. On the way he met with a violent storm, which caused him to go on shore near Dantzic, and travel thence by waggon. Travelling in an open waggon, and the continuation of bad weather, increased his illness so rapidly that, when he arrived at Rostock, he could travel no farther. He died there August 28th, 1645, and his body was carried to Delft, and interred in the family vault. Thus ended the stormy life of an exile and a wanderer, of a great man and an intelligent Christian; to whose memory, in 1781, a monument was erected by his countrymen on the spot from which he was excluded during life.

REV. SAMUEL JOHNSON.

The Rev. Samuel Johnson was born either in Staffordshire or Warwickshire, 1649, and died in London, 1703.

He was educated at St. Paul's School, London, afterwards at Trinity College, Cambridge. Corringham not agreeing with his health, he removed to London, and took part in the opposition to the despotic measures of Charles II. This was the commencement of his career and zeal in the cause of civil liberty, of which he afterwards proved so distinguished an advocate. While Lord Russell was engaged in excluding the Duke of York, Johnson published a tract called "Julian the Apostate," a refutation of the "passive obedience" advocated by Hickes. This tract got him into trouble. He was prosecuted and fined, and, being unable to pay, he was imprisoned. During his confinement, with the assistance of friends, he published some papers against Catholicism.

In 1686 his perils were increased by his publishing "A Humble and Hearty Address to the Protestants in the Army." For this offence he was kept in close custody, tried again, and condemned to stand in the pillory, be fined 500 marks, and be whipped from Tyburn to Newgate. He was deprived of "orders," and the sentence was executed with great and disgraceful severity. James II. was asked to remit the whipping, but said that, as Johnson had the spirit of a martyr, he must suffer as one. He went through the terrible and degrading infliction with a brave and courageous spirit, and afterwards continued to use his pen in defence

of the noble cause he had espoused until the Revolution;

after that he wrote two pieces justifying the same.

During the time of William, he censured the acts of the Government, contended for annual Parliaments, opposed the institution of a standing army, and declaimed against the wars that render such an institution a national necessity. He was a bold, brave, and determined defender of the truth, and was well entitled to the name of martyr, by which his enemies were accustomed, in derision, to call him. In 1697 he was attacked by a decline, which terminated his life in 1703.

ISAAC OROBIO.

Isaac Orobio was born in Spain, and died at Amster-

dam, 1687.

This learned Iew was educated in the Catholic faith of his parents, and became Teacher of Mathematics in the university of Salamanca. Afterwards, being a medical practitioner at Seville, he formed a strong resolution to accept the faith of his ancestors. This led to his being accused before the Inquisition of Infidelity and Judaism. He received all the cruel attention that that institution usually bestowed on its victims. After remaining three years in a dark dungeon, and being repeatedly tortured, he showed no signs of repentance, and, there being no particle of evidence against him, he was liberated. He speedily disappeared from Spain, and visited France, whence he removed to Amsterdam, where he was allowed to act according to his conscience. He there had controversies with Spinoza, and others, on the truth of Christianity; but no alteration in his religious views was produced thereby. He practised as a physician with great reputation, and died in 1687.

THOMAS EMLYN.

Thomas Emlyn was born at Stamford, Lincolnshire, 1663, and died at London, July 30th, 1743.

After studying at Cambridge and London, he became chaplain in the family of Sir William Franklin in Ireland.

In 1688 he was minister of a congregation at Lowestoft, and thence removed to Dublin, where he was assistant to the Rev. J. Boyse. While at Dublin he was suspected of Arianism, and was subjected to a disgraceful prosecution. An inquisitorial examination was commenced by his dissenting brethren, the result of which was his dismissal from office. On his return from London to Dublin, finding himself exposed to public odium and misrepresentation, he published "A Humble Inquiry into the Scripture Account of Jesus Christ." No sooner did this work appear than he was arrested on a charge of blasphemy. He was tried and convicted before the Chief Justice of the Queen's Bench for holding views inconsistent with the doctrine of the Trinity. He was sentenced to one year's imprisonment and a fine of a thousand pounds. Being unable to pay this exorbitant fine, he, by the assistance of some humane persons, was set at liberty after undergoing about two years' imprisonment. He was a man of very excellent character and amiable disposition, and his only crime was that of differing from his neighbours on the doctrine of the Trinity.

JEROME SAVONAROLA.

Jerome Savonarola was born at Ferrara 1452, and hanged

May 23rd, 1498.

This famous Italian monk took the habit of St. Dominic in his fourteenth year, and was afterwards prior of a convent at Florence. Being a man of considerable talents, and having a great love of liberty, he used those talents to extend the liberties of his fellow creatures. He was very warm in his oratorical declamation against the authority of the Medici family in the State. He spoke with the authority of a prophet, and with the zeal of a man in earnest; hence he was denounced as an enthusiast and an impostor. During the life of Lorenzo, who respected Jerome's virtues, he was protected from danger, and at the approaching death of Lorenzo he received visits from Jerome. Afterwards Jerome took a leading part in the Republic, aiding those citizens who desired a democracy. He professed to be inspired from heaven, and maintained that Christ would reign over the Florentines, and that every citizen would

partake, as he ought, in the government of his country. His influence was greatly increasing, when his denunciations against Rome brought upon him the sentence of excommunication. He was afterwards tried and condemned for sedition and blasphemy. He bravely defended himself, but was ultimately tortured into a confession of guilt, and sentenced to be strangled and burnt.

He preached eloquently against the corruption of the court of Rome, particularly against the personal conduct of Alexander II. He wrote a great number of works having for their object the increase of morality among the people.

One of his books was entitled "Triumphus Crucis."

Being unable to stop the mouth of Jerome in any other way, the Pope had recourse to the usual method for the answering of unpleasant arguments—condemned him to be hanged and burnt. This sentence was put into execution May 23rd, 1498, in the forty-sixth year of his age.

JOHN BUNYAN.

John Bunyan was born at Elston, near Bedford, 1628,

and died in London 1688.

He was the son of a tinker, and followed the trade of his parent, who appears to have been an honest and industrious working man, and who gave our author the best instruction to be obtained—namely, how to read and write. During

the Civil War he served in the Parliamentary army.

The earliest change in John's religious career is reported to have been caused by the accusation of an old woman, who told him that "he was the ungodliest fellow for swearing that ever she heard in all her life." From this time he became very superstitious, and looked upon events that happened as judgments upon him for his wickedness. It is not so clear that he was so vicious as he thought himself. Early in life he married a pious young woman, and also formed the habit of reading what are called religious books. He soon became an attendant at a Baptist chapel, in which he was subsequently immersed, and appointed preacher, His preaching, however, got him into trouble, since he was not of the orthodox order. He offended the doctors and priests, and was indicted for preaching at Elston in

1657, but escaped without punishment. Shortly after—in 1660-he was again brought up, and convicted of holding "unlawful meetings, to the great disturbance and distraction of good citizens." He might have escaped even this time had he only consented to preach no more "to the distraction of his fellows." But John believed he had a "call," so would not desist. He accordingly became a prisoner, for conscience sake, in Bedford Gaol, where he remained

till 1672, when he was released by James II.

Among the stories told of him, one is that, during his imprisonment, he made a journey to London to preach, for giving him permission to do which the gaoler received severe censure. Another is that a good Quaker once visited him in the hope of converting him. "Friend John, I am come to thee with a message from the Lord; and, having searched half the prisons in England for thee, I am glad to find thee at last." The Quaker having thus delivered himself, Bunyan replied: "If the Lord had sent you, you need not have taken such pains to find me out, for the Lord. knows I have been in Bedford Gaol for these twelve years past !"

While confined in Bedford Gaol his mind and pen were active in writing portions of a work that has the admiration of nearly all nations, which, doubtless, every Protestant in England has read, and which Lord Macaulay has described as one of the purest Saxon books. "In the latter half of the seventeenth century," he says, "there were two creative minds in England; one produced 'Paradise Lost,' and the other 'Pilgrim's Progress.'" Next to the Protestant Bible "Pilgrim's Progress" was the first human production that came into my hands in youth, and I still hold it to be a true miracle of genius, in which all things that are not are made

to appear as though they were.

He lived—and preached with great success after his imprisonment—till 1688, when, on returning from Reading (which he had visited for the purpose of reconciling a father to his son), he caught a severe cold, which terminated his earthly career, August 31st. A monument has recently been erected to his memory at Bedford.

GEORGE FOX.

George Fox was born at Drayton, Leicestershire, July,

1624, and died January 13th, 1691.

He was the son of a poor weaver, who placed him apprentice to the shoe-making. He soon, however, quitted his master's service, and commenced a sort of hermit life. His friends persuaded him to return home, but he soon left them again. Reflecting on the degenerate state of mankind, he resolved to attempt the reformation of the people. Being in possession of the belief that he was specially called upon by the Lord to commence this great work, he determined to begin to preach. His wife also shared in his spiritual illumination, and accordingly joined him in the great enterprise, and assisted him in preaching. With nothing but his Bible to guide him (having had no education, nor any collegiate certificate), he commenced teaching the people "to receive the inward teachings of the Spirit," and make that the rule of their lives. Not by Scripture, but by the Holy Spirit, are men to be guided. He said that, when the Lord first called him to preach, he was not to "pull off his hat," nor bid any "good morning or good evening," nor to make any distinction between "high and low, rich and poor," etc. This conduct of his, he says, "made the professions and sects to rage." His disciples imitated him in his frugal habits, plainness of dress, and reservation of manner in conversation.

He spent forty years of his life in travelling, preaching, and imprisonment. He suffered greatly from the tyranny of the Civil Power, and the intolerance of a people who

would not, or could not, appreciate his labours.

Of course every one knows that George Fox was the originator of the Society of Friends, called Quakers. The term Quaker was first given to him at Derby by Justice Bennett, before whom Fox was brought for trial. Fox says: "He called us Quakers, because I bid him tremble at the word of the Lord." Perhaps a better social reformation was never effected than that by Fox, the influence of whose labours lives among us even unto this day. One is sometimes tempted to exclaim, "Oh, that all men were 'Friends."

In 1655 Fox was a prisoner in Scarborough Castle, which edifice is now in ruins. The officers described him as "stiff as a tree, and pure as a bell." One of the rooms in which he was confined was on the sea-side, which, he says,

"lying much open, the wind drove in the rain so forcibly that the water came over my bed and ran about the room, so that I was obliged to skim it up with a platter." His diet was very spare; a threepenny loaf lasted him three weeks, and his drink was mostly water, into which wormwood had been infused. The pleasant and fashionable watering place would hardly have the charm for Fox which it affords more modern visitors, who, if they ever reflect, must wonder at the stupidity and bigotry that in times gone by could imprison a man so good and innocent as the model of simplicity, George Fox.

MARTIN LUTHER.

Martin Luther was born at Eisleben, Saxony, in Novem-

ber, 1484, and died there February, 1546.

His father, Hans Luther, was a miner. From school he was removed to the University of Erfurt, to study the law, but Martin preferred literature and music. While at the university one of his fellow students was killed by lightning, which had so great an effect on Martin that he resolved at once to become a monk, and he accordingly entered the convent of Erfurt. After overcoming some religious doubts, adopting the Augustine doctrines, and gaining the consent of his father, he was ordained, and subsequently made Professor of Philosophy in the University of Wittemberg.

In 1510 he was sent to Italy; and, finding a great disparity between the profession and practice of his brethren, he informed the monks of Milan that they ought to fast on Fridays, for offering which advice he narrowly escaped with his life. On his way he was amazed at the sensuality, hypocrisy, and treachery that presented themselves; and even at Rome itself the blasphemous jests and unbelief of the priests bewildered the mind that had fondly dreamed of Pontifical purity in the citadel of Christendom. He returned home, and achieved a high reputation as a divine and preacher, and in 1512 was made Doctor of Divinity.

Some five years after this event the devout and moral Luther was greatly shocked at a bull issued by Leo X. for the sale of indulgences in Saxony, by which, according to the Monk Tetzel, the ignorant and credulous were released from all manner of sin! Luther having expressed hisdisgust at this procedure, Tetzel threatened all who denied the efficacy of his quack indulgences with spiritual and temporal punishment. Luther, astounded at the gross impudence of Tetzel, entered into fierce opposition, denying that the Pope had power to absolve men from the penalties of Divine justice, either here or hereafter, and exhibited the avarice and licentiousness of those who deal in indulgences, and the fearful consequences of their issue among the poor deluded people. The debate on indulgences. ultimately extended to "free will," "justification by faith," Tetzel and his brethren burnt one of Luther's books. and afterwards Leo himself called on the author to "appear and answer at Rome." Luther was then examined by a cardinal, who, instead of arguing with him, called upon him to retract—asking how he, a monk, could expect to confront the Pope. Luther answered that neither the Legate, the Pope, nor St. Peter himself could pretend to infallibility. The cardinal, being unable to confute him, endeavoured to get him expelled from his country; but this did not succeed, for Frederick the Elector was Luther's friend, and a greater authority than Rome itself.

Luther was afterwards engaged in controversy with Eckius, who maintained that the Church was a divine monarchy with "a head" of divine appointment. This Luther admitted, but contended that "that head" was Jesus Christ. Lutner published his work on "Christian Liberty," in which he attacked the prevailing doctrine of the Church. led to Leo X. assembling his cardinals, who, having examined Luther's writings, and pronounced them "heretical," condemned and ordered them to be publicly burnt. Luther himself was summoned to "confess and retract." Instead. of confessing, he publicly withdrew from the Church, and burnt on a pile of wood outside the walls of Wittemberg the Pope's bull, decrees, and canons, in the presence of a vast multitude of people. Leo then urged the Emperor Charles V. to make an example of Luther as an unrepenting heretic; but, by the influence of Frederick, Luther, instead of being punished, was summoned to appear at a Diet of the empire, which assembled at Worms in 1521. On some one trying to dissuade Luther from appearing before such an august assembly of Electors, bishops, and lords, he said he would go, though there were as many devils in Worms.

as there were tiles on the roofs of the houses! Before this remarkable assembly he boldly owned all his writings, and contended for the main truth of all he had written.

He admitted as a man he was, like other men (popes. cardinals, and councilmen included), liable to err, and would consent to burn such portions of his writings as could be proved erroneous by the testimony of the Scriptures. Charles V. expressed the common opinion of the Diet in saying that he could no longer listen to Luther, and that he should dismiss him and treat him as a heretic. Luther was ordered to leave Worms with security for twenty-one days. He accordingly quitted the place; but, on entering a forest on his way, he was suddenly stopped by a number of armed men in masks, who carried him off to the Castle of Warten-This little plot, however, was set on foot by his friend Frederick, and it was reported that the enemies of Luther had carried him off, no one knew whither. After this event. the Diet of Worms ordered the reformer to be detained in prison at the Emperor's pleasure, and imprisonment and confiscation were threatened against all who offered him aid. This impudent threat was easier made than executed, for Frederick and other Electors were friendly to Luther; and, moreover, the people, disgusted with Church abuses, were preparing to side with him. While in confinement at Wartenberg he wrote several treatises, which created a great sensation in Saxony. The monks began to abolish mass and demolish images. Hundreds of them quitted the convents to enter "the holy estate." Carlostadt, one of his disciples, proposed to put all the books out of Wittemberg, except the Bible, and made an effort to fulfil the sentence pronounced on Adam by working in the fields, while the intellectual Melancthon was found busily engaged in a baker's shop. This sort of thing was disapproved of by Luther, and Carlostadt was banished by Frederick as "a seditious person, inculcating the doctrine of natural equality." Here set in a new source of grief to the great reformer. He had no sympathy with the Anabaptists, who were for warring against all property and law. So great was Luther's dismay at these proceedings, that he thought the end of the world was surely approaching. In 1524, believing "marriage in its purity is a state of simplicity and peace," Luther practically renounced the oath of celibacy by marrying Catherina de Bora, a young nun, who had the year before quitted the convent.

In 1529 the Catholics made an attempt to enforce the edict of Worms against Luther, but the reformed Electors opposed it. They then issued a decree against those who denied the "real body and blood," which, however, included the followers of Luther, who did not deny the doctrine. It was this that called forth the formal "Protestation" of the reformed princes and the deputies of fourteen cities, thus bringing into existence the world-wide name of "Protestants."

One of the greatest works of Luther's life was undoubtedly his German edition of the Bible, through which the Christian and Jewish writings became very popular in Germany. Although opposed to the Roman Church, Luther was undoubtedly a sincere believer in Revelation, claiming, of course, like other Christians, his own right to interpret the same. But, as a citizen, he was the friend of the poor and the oppressed, of education for the working classes, and a determined enemy to the encroachments of ecclesiastical and imperial power, which kept the people in ignorance and

misery.

In 1546 he visited Eisleben, where he restored peace to the family of Mansfield, and made some regulations for the ecclesiastical government of the State. While there he was taken ill; and, becoming gradually worse, Dr. Jonas, an old friend, being present, said: "Revered father, do you die with a firm conviction of the faith you have taught?" To which Luther distinctly replied, "Yes," and immediately after breathed his last. The great and grand revolution inaugurated by Luther doubtless laid the foundation for that freedom of thought and liberty of conscience we so justly admire and revere in modern times. From his teachings is deducible the doctrine which proclaims the inalienable right of all men and women to exercise their reason before accepting or rejecting the doctrines of the Jewish or Christian Churches.

GEORGE BUCHANAN.

George Buchanan was born at Killearn, Stirling, February, 1506, and died at Edinburgh September, 1582.

This man of great learning, and the best Latin scholar of his time, was a son of poor parents. By the aid of his

uncle, he was sent to Paris University, at which he remained only two years, in consequence of his uncle's death. He returned to Paris, where he obtained the degrees of B.A. and M.A., and also a professorship in the College of St. Barbe. He visited Rome with a nobleman in 1532; and, returning to Scotland five years afterwards, he became tutor to James Stewart, son of James V. At this time, while on visits to his friend Lord Cassilis, he wrote three poems satirising the clergy, which called down their vengeance, and caused him to be imprisoned as a heretic. It is said that Cardinal Beaton offered a sum of money to the king (who had asked Buchanan to write the poems) to order the immediate execution of him.

He escaped to England; but, finding himself in danger, went to Bordeaux, where he wrote some Latin poems, which occasioned him new troubles from the clergy. Having removed from there to Paris, he accompanied his friend Govea to the University of Coimbra, in Portugal. But even here his heresies followed him. The Inquisition condemned him as a heretic, and shut him up in a monastery. During his confinement he wrote his "Version of the Psalms." When released, he again visited England, but its political crisis would not permit his remaining there, and he went to France, where he remained several years. In 1560 he turned his wandering steps homewards to Scotland, and there filled several high and influential offices with credit and advantage to himself.

At the time his "History of Scotland" was in the press, he was called away by death. A few days before, when some friends visited him, they found him teaching the English language to the servant boy who waited on him. The greater part of this great man's life was spent in poverty persecution, and exile; and, although in later years he was well-to-do, his benevolence was so great that he left insufficient money to meet the expenses of his funeral, and had to be buried at the public cost.

JAMES NAYLOR.

James Naylor was born in Yorkshire 1616, and died in Huntingdonshire 1669.

In early life he was a soldier; but becoming a convert to George Fox, he commenced preaching, and is said to have greatly distinguished himself as divine and writer. He was of an excitable temperament; he believed himself inspired from heaven. Having a strong belief in his own and other people's divine gifts, he travelled with his friends to Bristol, into which place he made a grand entrance. On reaching the outside of the town, several women spread their garments in the way for his horse to walk on! On either side of his horse others walked, singing, "Holy, holy, holy, Lord God of Sabaoth," etc.

This exhibition was considered an imitation of Jesus Christ entering Jerusalem, and the enlightened British magistrates had Naylor taken before the House of Commons. Parliament, as wise as the ancients, at once tried and condemned Naylor as "a grand impostor and seducer of the people." By way of correcting his erroneous opinions, he was ordered to be set on the pillory in the Palace Yard, and be whipped from thence to Westminster; to have a paper fastened to him describing each of his crimes; his tongue bored with a hot iron, and the letter "B." branded on his forehead, signifying blasphemer. He was afterwards sent to Bristol, through which place he was taken with his face backwards on horseback. On the following market day he was publicly whipped. He was then removed to Bridewell prison to work at hard labour, "restrained from the society of all people," and from the use of pen, ink, and paper. The whole of this wise, humane, and pious sentence was strictly carried out, and he was then discharged from prison by the House of "collective wisdom" in 1659. An old historian informs us that Naylor's mild correction produced good results, for he says "it brought him to his senses, and with them to an exemplary degree of humility."

BENEDICT SPINOZA.

Benedict Spinoza was born at Amsterdam November 24th, 1632, and died at Hague 1677.

He was the son of a Portuguese Jew, who is said to have sought peace in Holland when persecuted elsewhere. Early in life Spinoza manifested a great love of knowledge and truth. He began to doubt the authenticity of the Talmud; and, being a devout and thoughtful man, he soon neglected the ceremonial forms in which his brethren delighted. He endeavoured to discover the foundation of the Jewish religion, instead of imitating his idle brethren, who reverence, as profound mysteries, things which they might have dis-

covered to be merely absurdities.

Spinoza's freedom of inquiry brought on him suspicion and excommunication. One rabbi, full of Jewish zeal, stabbed him as he came from a play one evening. synagogue solemnly dismissed him, his friends closed their doors against him, and, under the shelter of some charitable Christian's house, he was concealed from danger. Finding himself without a home or any resources, he commenced as a polisher of glasses for microscopes, etc., and in his leisure moments continued his philosophical inquiries, which had already brought him much persecution. He studied and acquired a knowledge of several languages. A goodnatured Atheist taught him Latin. On the accusation of impiety, he retired to Rhensburg, and afterwards to near the Hague, where he continued to support himself by the work of his own hands. Here he published his treatise on Cartesian Philosophy. In 1670 he published his "Tractatus Theologico-Politicus." This publication was officially condemned, and was attacked by nearly all the divines of every persuasion. Before this "abominable tract" appeared he was offered a chair in the University of Heidelberg, with full liberty to philosophise. But there was one condition with which the brave and independent Spinoza could not, and would not, comply-namely, that he would not disturb the prevailing religion. When Louis XIV. offered him a pension, he declined to accept it, saying that "he had no intention of dedicating anything to that monarch."

The system of Spinoza, or rather those parts of it that caused his persecution, have some resemblance to the systems of the early Greeks, who maintained that God was the soul of the world, etc. He differs, however, from their doctrines as to the universe being an emanation of the Divinity, the result of intelligence and design. According to Spinoza, there is but one substance, the universe, which he calls God. This substance is infinitely diversified, and contains within itself the necessary causes of all the modifications of the same, to which we give the name finite. This substance is not one individual, but the foundation of all

individual beings; it exists of necessity, never has begun to be, and can only be thought of by itself. Finite objects, or the mutable limitations of the infinite, are the only objects that can be said to be limited to time that have a beginning. His great object was to deduce mathematically the laws of moral life, founded on this conception of Deity, in order to

establish a system of ethics.

Whatever may be thought of Spinoza's system, there cannot be two opinions about his character as a man. Although despised by his relations, repudiated by the rabbis, cursed by the Church, and condemned by the State, he was courageous and sincere, and his private life was unexceptionable. At the early age of forty-five his life was terminated by a decline, and he died in full assurance of the truth of his principles. To avoid the dissemination of untruthful death-bed stories, he instructed his hostess (as any good man has a right to do) not to allow any minister to approach his room during his last hours.

ANTHONY LAWRENCE LAVOISIER.

Anthony Lawrence Lavoisier was born at Paris August

13th, 1743, and died May 8th, 1794.

This celebrated chemist acquired considerable knowledge of science early in life, and he first distinguished himself by obtaining a prize from the Academy of Sciences for the best method of lighting the streets. He became a member of the Academy, and greatly distinguished himself by his chemical experiments, on which he spent a considerable portion of his fortune. The discovery of oxygen gas by Priestley led Lavoisier to make interesting experiments on the composition of water and air. When the new system of weights and measures was introduced he improved it by his experiments on the expansion of metals. devoted part of his estate to experimental farming. Nearly the whole of his large fortune was devoted to the promotion of arts and sciences. He employed the most skilful artists in making instruments, and he held meetings twice a week at his house for the purpose of discussing the theories and discoveries of scientific men. Those interested in such studies, both in France and other countries, visited him, and found nothing neglected that could

augment the fund of philosophical information.

It appears strange that so great and good a man as Lavoisier was not protected from the tyranny and troubles of his time. He seemed, however, to anticipate the loss of his property, and considered how he should best support himself. But he little thought that the sentence of death awaited him when the Revolutionary Tribunal of Paris condemned him, with other farmers-general. They charged him with being a conspirator, and with adulterating tobacco with water and ingredients prejudicial to the health of the citizens. On this extraordinary pretext the illustrious Lavoisier was beheaded by the guillotine on May 8th, 1794. Finding his fate inevitable, he asked for a few days' grace, to afford him an opportunity to make an interesting and important experiment; but this was refused him. He left behind an intelligent and accomplished widow, who had participated with him in his chemical researches, and who had engraved with her own hand the plates to illustrate his publications.

DEODATUS DOLOMIEU.

Deodatus Dolomieu was born at Grenoble June 24th,

1750, and died November 26th, 1801.

Early in life he became a member of a religious order at Malta; but owing to a quarrel, and to a duel that followed, he was tried and sentenced to death. After being imprisoned, and receiving a pardon, he went to France, and joined the army. Forming an acquaintance with Rochefoucault, he became a student of natural history, quitted the army, and was made a member of the Academy of Sciences. He afterwards visited and examined Ætna, Vesuvius, and the Apennines. On his return he took part, on the popular side, in the Revolution. He then accompanied Bonaparte to Egypt, and on his arrival home was made prisoner. At Messina he was confined in a small dungeon, into which the light and air were admitted through one small aperture, which was carefully closed every evening. In order to obtain the slightest amount of air, he was com-

pelled to constantly fan himself with the dirty old rags which formed his only clothing. While in this dreadful hole he formed the plan of a work on "Mineral Species." A fragment of this he wrote, with a piece of bone that he sharpened against his prison wall, on the margins of books; the smoke from his lamp, mixed with water, serving him for ink. After long suffering in captivity, he was liberated by the interposition of Sir Joseph Banks. On visiting his sister he was attacked by disease, contracted during his loathsome imprisonment, and which terminated his life in 1801.

ANDRE MARIE DE CHENIER.

André Marie de Chénier was born at Constantinople

October 22nd, 1763.

When about ten years of age he was taken to France by his father (who was a French consul), and sent to the College Naverre, at Paris. He greatly distinguished himself while at college, especially in Greek and ancient literature. Close application to study having injured his health, he travelled to Switzerland and England. Three years after he returned to Paris, where his attention was devoted chiefly to poetry. He is described as a man of universal mind, and some of his earliest efforts as being extremely beautiful

Unfortunately, Chénier, in his thirtieth year, was overtaken by the terrors of the French Revolution. He appears to have been alike the enemy of anarchy and of despotism, and consequently pursued the intervening course between the king and the people. Having offered to defend the king on his trial, Chénier rendered himself obnoxious to the Jacobins, and was compelled to hide himself. He was soon after arrested; but, had his father not been so anxious to save him, he might have escaped from the prison into which he was thrown. During his imprisonment, and after his conviction, he is said to have composed some really admirable poetry. In 1794 he was taken before the Revolutionary Tribunal and condemned, and on July 26th he suffered death by the guillotine.

The poetry of Chénier is said to have been the source of inspiration to many modern writers; amongst others, the exiles Lamertine and the author of "Napoleon the Little."

JOSEPH PRIESTLEY.

Joseph Priestley was born at Birstal, near Leeds, 1736,

and died in America 1801.

He was the son of a cloth-dresser, and, his mother dying when he was very young, an aunt sent him to a grammar school, where he was taught some Latin and Greek. is said to have acquired some knowledge of modern Euro pean languages without the aid of a teacher. His studies in theology led him to embrace heterodox views, and, being appointed minister of a small congregation, it soon became smaller when his opinions were discovered. He then turned schoolmaster, during which time he arrived at the conclusion that the Atonement was neither scriptural nor reasonable.

On visiting London Priestley met with Dr. Franklin and Dr. Price. He was elected a member of the Royal Society, and was made Doctor of Laws by the Edinburgh University. These honours appear to have been conferred upon him for his writings on scientific subjects. In 1774 he discovered oxygen gas, which he called dephlogisticated air, by concentrating the sun's rays on red precipitate of mercury. statue erected at Birmingham represents him in the act of making this discovery. He was proposed, at a good salary, to accompany Captain Cook; but his religious principles were not orthodox enough for the Board of Longitude. He travelled with the Earl of Shelbourne on the Continent.

Paris the philosophers told him that he was the only person of any understanding they had met with who believed in

Christianity.

Priestley wrote his views on the sentient principle in man, which he declared to be material, immortality being conferred by God at the resurrection. This gave him the titles of "unbeliever" and "Atheist," the common descriptives applied to thinking and rational men by the orthodox. In 1785 his work on Christianity had the distinguished honour of being burnt by the common hangman in the City of Dort. His reply to Burke on the French Revolution gave great offence to the lower orders of Birmingham, as they did not approve of that event. A dinner in 1791 to celebrate the anniversary of taking the Bastille, at which he was not present, occasioned an outburst of violence aud fanaticism. The Church-and-King party destroyed public buildings, including the hotel where the dinner was held,

and attempted to set fire to the Doctor's house, his apparatus,

his library, and his manuscripts.

Finding England an ungrateful and persecuting country, he went to America in 1794. Here his intentions and character appear to have been misunderstood, and his disappointment is said to have been very great. He was suspected of being a spy, and it was reported that more persons feared his opinions than desired to hear them. At the time of the riot in Birmingham he was minister of the Unitarian Chapel in New Meeting Street, which has since been sold to the Roman Catholic Church on the occasion of the congregation erecting a church in Broad Street.

A few years after his departure to America Dr. Priestley lost his wife and a son. The bigotry and persecution manifested towards Dr. Priestley in Birmingham are now looked upon as a disgrace to the town, and as one of the blackest spots on the darkest page of its history. The men of the past generation were violent, and sought his destruction; the men of to-day revere his memory, and erect a beautiful statue in the very centre of the town from which

he fled for his life.

A great change has taken place in the opinion of the people of England during the past fifty years; and no better index as to which way their tendencies point do we need than a statue at Manchester to Oliver Cromwell, and one at Birmingham to Joseph Priestley.

GALILEO GALILEI.

Galileo Galilei was born at Pisa, Tuscany, February, 1564,

and died at Arcetri, January, 1642.

His ancestors filled high offices in Florence. His father was a philosopher in his way, and a writer on the theory and practice of music. Galileo was educated under considerable disadvantages, owing to the straitened circumstances of his father. He acquired the elements of literature, music, drawing, and painting, and was particularly charmed with mathematics. All the attempts to check his desire for knowledge, and to direct his attention to professional objects, proved fruitless.

Galileo's habit of observing was formed very early. about his twentieth year we find him observing a simple circumstance that led to the discovery of the best means we yet possess of measuring time. Disraeli, speaking of the habit of continuity of attention, says: "It was one evening in the Cathedral of Pisa that Galileo observed the vibration of a brass lustre pendant from the vaulted roof, which had been left swinging by one of the vergers. The habitual meditation of genius, combined with an ordinary accident, produced a new idea of science, and hence was conceived the invention of measuring time by the medium of a pendulum."

Thus the motion of a body in space, which had doubtless been observed centuries before, seen by the philosophic eye of the Florentine youth, suddenly became the source

of a desirable and valuable invention.

To refute one of the axioms of the Aristotelians-that the velocity of bodies was proportionate to their weightshe made an experiment by letting two bodies of unequal weight fall from the Tower of Pisa. When they saw the two bodies fall nearly at the same instant, they ascribed it to some unknown cause, as they preferred the authority of their master to that of nature. Thus the experiment, instead of making him disciples, made him open and secret enemies. He then removed to the University of Padua, where he held a professorship many years. It was here he and Repley formed a lasting friendship. Here an accusation was brought against him by his enemies that he was living in an unmarried state with Marina Gamba. Senate replied that, if he had a family to support, he had more need of an increase of salary. Thus orthodoxy winked and malice lost the day. His popularity without had so increased that a thousand persons attended his lectures, and frequently had to adjourn into the open air. Having heard of a spectacle being invented by which distant objects were made to appear nearer the observer, he made experiments till he succeeded in making a telescope, which magnified three times, and afterwards thirty times. This instrument excited extraordinary interest, and almost phrensy. Galileo saw through his "eye-glass" the moon, as though distant the diameter of the earth. He also saw the planets and This eye-glass was the fixed stars with incredible delight. first step to astronomical discoveries.

Having perfected his telescope, he saw, as the celebrated

French astronomer Biot said, "what no mortal before that moment had seen—the surface of the moon, like another earth, ridged by high mountains, and furrowed by deep valleys; Venus, as well as it, presenting phases demonstrative of a spherical form; Jupiter surrounded by four satellites; the Milky Way, the Nebulæ; finally, the whole heaven sown over with an infinite multitude of stars, too small to be discerned by the naked eye."

While studying Archimedes, the Syracusan, he wrote an essay on the Hydrostatic Balance, describing that instrument, and the method by which its inventor detected the fraud committed by the jeweller in the composition of Hiro's crown. This gained him the acquaintance of Guido Ubaldi, which was one cause of his success in after life.

In relation to the new star of 1604, he proved that the common hypothesis of its being a meteor was erroneous. In 1607 he discovered a method of arming load-stones which enabled them to carry twice as much weight as before. In 1610 he discovered Jupiter's satellites, and afterwards the crescent of Venus, the ring of Saturn, and the spots on the sun.

The opponents of Galileo regarded his statements about the "mountains and valleys" of the moon as impiety. The moon, according to his opponents, was perfectly spherical and absolutely smooth, and to cover it with mountains, and to scoop out of it valleys, was to deface the spherical forms imprinted by God himself. The professor of philosophy at Padua sternly resisted Galileo's request to look through the telescope, and judge for himself. Sizzi, an astronomer of Florence, said that, as there were only seven apertures in the head, only seven metals, and only seven days in the week, so there could be only seven planets. Horky said that he had examined the heavens through Galileo's own glass, and no satellite existed round Jupiter, and that he would never concede his four planets to that Italian of Padua, even if he should die for it.

Owing to the attempts that were made to deprive Galileo of the honour of some of his discoveries, he afterwards declared them under the veil of an enigma. Some difference of opinion arising respecting the shape of bodies and their dispositions to sink in water, Galileo published a work on Hydrostatics, which met with violent opposition. The announcement of his discoveries in the earth shared a similar fate to that of his observations in the heavens. The

Jesuits, who had for some time hated Galileo, reported his discoveries as being hostile to religion, and had him openly denounced from the pulpit of a friar named Caccini. Galileo replied to these attacks by explaining his belief that the Scriptures were to teach men salvation, but that our minds were given us for the purpose of investigating

phenomena.

The enemies of Galileo, being unable to refute his reasoning, called on the civil power to crush so dangerous an innovation. They accordingly appealed to the Inquisition. While at Rome in 1615, surrounded by the splendour of the citadel of Christendom and the metropolis of the world, he was called before the Inquisition to answer for heretical opinions he had taught respecting the motion of the earth and the stability of the sun. On February 20th, 1615, the Inquisition assembled, and decreed that Galileo should be enjoined by Cardinal Bellarmine to renounce the obnoxious doctrines, and to pledge himself not to teach, defend, or publish them in future. In the event of his refusing, he

was to be thrown into prison.

Galileo for a time silenced his enemies, having obtained some protection and kindness in the persons of Paul V. and Urban VIII., and in Ferdinand II.'s personal esteem and friendship. After overcoming various difficulties, in 1632 he obtained leave to publish his views, and dedicated them to Ferdinand II. His work was entitled, "Dialogue on the Ptolemaic and Copernican Systems," the form of dialogue, as he thought, being the best for enabling him to evade his promise to the Inquisition, that he would not again teach the Copernican doctrines. His expectation of evading the wrath of the Inquisition was frustrated, for in 1632 he was again summoned to appear at Rome, where he arrived on February 14th, 1633. This journey to Rome in his seventieth year was a great trial to him, but the infirmities of his body and the miseries of the road were urged in vain against the cruelty of demanding his personal attendance. After some months' residence with the Tuscan ambassador, Nicolini, who (his name be praised!) offered to maintain our philosopher at his own expense, Galileo was summoned to appear before the Inquisition in the convent of Minerva.

The following passages convey an idea of the sentence pronounced against Galileo by decree of the Pope and cardinals of the supreme and universal Inquisition:— "1st. The proposition that the sun is the centre of the world, immoveable from its place, is absurd, philosophically false, and formally heretical, because it is expressly contrary to Holy Scripture.

"2nd. The proposition that the earth is not the centre of the world, nor immoveable, but that it moves, and also with a diurnal motion, is absurd, philosophically false, and theologically considered at least erroneous in faith.

"We decree that the book of the 'Dialogues' of Galileo be prohibited by edict; we condemn you to the prison of this office during our pleasure; we order you for the next three weeks to recite once a week the seven penitential psalms, &c."

Mark the humiliating words of the greatest philosopher of that age, borne down by infirmities of body and mind:

"With sincere heart and faith I abjure, curse, and detest the said errors and heresies; I swear that I will never in future say or assert anything, verbally or in writing, which may give rise to a similar suspicion against me.

"I, Galileo Galilei, have abjured as above in my own

hand."

On June 22nd, clothed in a penitential dress, he appeared before the Inquisition to receive their judgment and elaborate sentence. After the customary invocation of their Saviour and Holy Virgin, he was called on, with "a sincere heart and faith unfeigned, to abjure and curse his heresies," and every other heresy against the Church. His "Dialogues" were prohibited, and he was condemned to imprisonment during the pleasure of the Inquisition, and for the first three years, once a week, to recite the seven penitential psalms!

Clothed in sackcloth, the venerable sage fell on his knees before the wiseacre cardinals, and, laying his hands on the holy evangelists, he invoked the aid of God Almighty, abjuring, detesting, and avowing never again to teach of the earth's motion and sun's stability. He then signed the precious document containing the charge, and was con-

veyed to prison.

After enduring the awful formality of one of the most detestable ceremonies of ignorance and superstition, we can easily credit the anecdote so often repeated of him. It is said that, when Galileo rose from his knees, he stamped on the floor, and said to one of his friends, "E pur se muove!" ("It does move for all that").

After years of intense suffering, and the strictest seclusion till he lost his eyes, which had observed in the universe more than all the eyes of past generations, he was attacked by fever, which terminated his life January 8th, 1642, in his seventy-eighth year. He died a prisoner of the Inquisition, and, accordingly, was not allowed to make a will, and the Pope refused to allow a monument to be erected to perpetuate his memory, and his remains were not permitted burial in consecrated ground.

m . 174

