

“For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life”. (John 3:16)

The Bible also makes it very clear that salvation from sin and its consequences may be found only in Jesus Christ:

“Neither is there salvation in any other; for there is none other name under heaven given among men, whereby we must be saved”.

(Acts 4:12)

FIVE GREAT MEN

THE BIBLE TEACHES THAT

“In the beginning God created the heaven and the earth.” (Genesis 1:1)

*“God created man in His own image”.
(Genesis 1:27)*

“By one man (Adam) sin entered into the world and death by sin; and so death passed upon all men, for that all have sinned”. (Romans 5:12)

“If we say that we have not sinned, we make him (God) a liar”. (1 John 1:10)

“Repent ye therefore, and be converted, that your sins be blotted out”. (Acts 3:19)

This is necessary because the Bible continues to teach that:

“The wages of sin is death”. (Romans 6:23)

The Bible also teaches that:

“The gift of God is eternal life through Jesus Christ our Lord”. (Romans 6:23)

*“God commendeth his love toward us, in that, while we were yet sinners, Christ died for us”.
(Romans 5:8)*

COMMENTS

These great men, whose work still impacts on our daily lives, even in this century believed not only in God, but in His Word the Holy Bible and what it teaches. They not only set an example in science but to all who sincerely seek the true purpose of life.

This booklet has been specially designed to give additional biographical information supporting the relevant panels in the *Bible and Christian Heritage Exhibition* sponsored by *Protestants Today*

The booklet is available for educational and evangelistic purposes in quantities for Churches, Schools and other Christian outreach projects.

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Published by
Our Inheritance Publications
Protestants Today
130 South Coast Road
Peacehaven
Sussex BN10 8RD

ISBN 1 902817 009

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been, revered as a communication to us from the creator of the universe, the supreme and everlasting God."

He became concerned about the growing influence of the theory of evolution among the scientific fraternity and the fact it was being taught as a scientific fact to the public. Because of the widespread acceptance of the theory, anyone standing against it, particularly a man of Dr Fleming's standing, risked ridicule. Nevertheless, knowing the theory to be unproven and indeed unprovable, Dr Fleming launched a vigorous campaign against it.

His lectures on the subject, were published under the title of "*The Evidence of Things Unseen*". One of the lectures, on the subject of population growth, demonstrated the impossibility of the human race being as old as the evolutionists suggested.

In retirement he dedicated his time and energy to seeking to draw men and women to the authority and message of the Bible and to his Lord and Saviour Jesus Christ, whom he knew and loved. He was called to the presence of His Lord in 1945.

His career commencing as it did, at the beginning of the age of electricity, meant that this was the natural field for a man with such a penetrating mind. His industrial fame started with the new Edison Telegraph Company, and continued when this company merged with Bell, where he designed many of the telephone exchanges.

When Edison, decided to provide towns with electricity to supply the power for the newly invented light bulb, Dr Fleming was appointed as the company Chief Electrician. The distribution of electricity proved to be a major problem. It was John Fleming's brilliance that overcame the difficulties, which entailed the re-design of the system invented by an Italian named de Ferranti.

Dr Fleming was largely responsible for the design of the powerful equipment needed to transmit the first radio signal across the Atlantic. The two electrode radio rectifier, or radio valve, also owes its invention to Professor Fleming's brilliance. In 1929 he was honoured with a Knighthood.

Despite a busy life in the world of science, Dr Fleming's greatest love was to study the Bible and serve his Lord and Saviour Jesus Christ. The date of his conversion to Christ is uncertain, it is however known that this took place in his youth. Of the Bible Dr Fleming said "*by countless multitudes it is, and always has*

Sir Isaac Newton (1643 - 1727)

Born prematurely in 1643, in the Manor House Woolsthorpe, Lincolnshire, Isaac Newton was so small that he could have been placed in a two pint pot, he was given little chance of survival. But survive he did, to become one of the greatest scientific minds of the world.

Coming from Yeoman farming stock, in Grantham Lincolnshire, he attended the local grammar school. Not long after his birth, his father died, and his mother remarried. She removed him from the school, hoping that he would manage her now greatly increased estate.

However, his interest lay not in the land, but in books, and in 1661 he was sent to Trinity College Cambridge, where in 1665 he earned his Bachelors Degree. In the summer of that year, the plague closed the College and he returned to Lincolnshire, and he began revolutionary advances in mathematics, optics, physics and astronomy.

Newton was largely responsible for the scientific revolution of the 17th century. He established the principles of the system of Natural Science, that has dominated Western

thought since. During the years of the plague he advanced the field of mathematics, by laying the foundation for the establishment of Calculus, a powerful tool, which took mathematics above that of Greek Geometry. Although its inventor, he did not introduce it into European mathematics, being fearful of publication and public criticism.

The brilliant mind of Isaac Newton led to the establishment of the heterogeneity of light; that is the idea that sunlight is a heterogeneous of different rays, each of which provokes the sensation of a different colour. When he passed a thin beam of sunlight through a glass prism, he observed the oblong spectrum of colours, red, yellow, green, blue and violet. In 1672 he sent a copy of his theory of colour to the Royal Society in London. The publication of this led to some criticism, confirming his fear of publication.

As if this were not enough, the genius of Newton developed three laws of motion which are the foundation of modern dynamics. It was from these that he derived the law of universal gravitation. The story that he derived the law of gravitation, by watching an apple fall from a tree, is untrue. Newton is also famous for the development of the reflecting telescope, the first of its kind.

Is it any wonder that Isaac Newton has been called "*the greatest scientific genius the world has known*"? His scientific output was

Sir John Ambrose Fleming 1848 - 1945)

Born into a parsonage in Kentish Town, London in 1848, John Fleming was at the age of eleven privileged to witness the spiritual awakening that took place in England in 1859. At the age of sixteen he started studying at the University College, London, for a science degree.

Although born in an affluent suburb, his father, a Doctor of Divinity in charge of a large congregation, could not afford the University fees. This meant that John was forced to earn a living as a stock exchange clerk, yet despite the additional work, he attained a first class honours degree.

His initial ambition was to teach, but being unable to settle to this he sought other fields. Winning a scholarship to Cambridge, he studied under James Clerk Maxwell in St John's College. His keen mind, led into research where he earned a Doctorate of Science Degree. This led to his being appointed a Professor at University College, Nottingham. He became well known for his many contributions to the use of Electricity, being Professor of University College London (1885 - 1926).

will find a Saviour, a companion, a counsellor, a friend, a brother who loves you with a love greater than the human heart can conceive.”

Towards the end of his life he was honoured with a knighthood. Sir James died aged fifty-eight. On the day of his funeral, Edinburgh came to a standstill, two thousand people followed the hearse. But his words of witness remain true *“We can do nothing to wash away our guilt before God, but Christ has done all that is required. Believe on the Lord Jesus Christ, and thou shalt be saved.”*

phenomenal, breaking many new grounds of science, so much so that he had the distinction of being the first scientist to be knighted. Here was a man whose work not only affected the society in which he lived but has affected every part of Western society since. In 1693 he suffered a serious illness which, despite making a full recovery, to all intents and purposes brought his creative work to an end.

The amount of study needed to achieve so much in the scientific realm would have been great, as any student will verify, but what is not so well known is that he spent less time studying science than he did theology. It is reported that he wrote over one million three hundred thousand words on biblical subjects, yet this vast legacy lay hidden from the public for two centuries. It was only in 1936 that this treasury of knowledge was made public.

He was an active member of the Anglican Church, not only attending services, but actively participating in special projects. One such project was the distribution of Bibles among the poor. He also served on a commission to build fifty new churches in the London area.

In 1687, he helped lead Cambridge’s resistance to the efforts being made by James II to Catholicize it. When James fled England, the University elected him, as one of its representatives in the Convention Parliament. His connections with the leaders of the new

regime led to his appointment as Warden, later Master of the Royal Mint.

Newton's house in London is still partially in existence, and has been incorporated into the present Orange Street Congregational Church. Its original staircase is still in use today. His dinning room on the ground floor is used as a meeting place and has been named "Newton Hall".

Here is a man, a brilliant scientist, astronomer and mathematician who believed in the God of creation. He said of the Holy Bible: *"The Bible tells us how to go to Heaven, not how the Heavens go."*

about her less painful birth, that she named her child "Anaesthesia". He also introduced iron wire sutures, developed the Simpson forceps, and was appointed one of the Queen's physicians for Scotland.

Still addicted to wealth and honour, the question that had plagued him, surfaced again, this time through the words written to him by an invalid Christian patient. This time however there was an added problem. With the doubts about the meaning of life, there was an acute awareness of the sinfulness of life, his life which had been one long rejection of God. Now he longed for forgiveness and a knowledge of God. As the battle raged in his soul, he found his way to the home of his patient. The famous doctor said to her, *"I felt I must go somewhere tonight ... I wish to come to Christ"*. James Simpson, was urged to repent of his sin, and to trust only in Christ's death for salvation. James became a new man just as the Bible says will happen to all who repent and trust Christ; he became a new creature in Christ.

Life took on a new meaning. He had a new understanding of God and the Bible. He felt a deep certainty in his soul, that God had made him His child. He now wanted above all else to serve Him. His conversion caused a considerable stir at the Royal Infirmary. In his lecture room, he told his students about his experience, calling himself the oldest sinner and the youngest believer in the room. Furthermore he told his students *"In Christ you*

some form of intoxicating liquor. The terrified patient, held down by assistants, screamed as the surgeon's knife cut deep into the body and, if fortunate, would pass into unconsciousness.

Simpson, hearing these screams for the first time as a student, was deeply affected by them and longed to see an end to such suffering. Despite his success, becoming Professor of Midwifery in 1839 at the age of just twenty-eight and with the world at his feet, he was plagued with doubts, seeing even his productive life as a waste of time. He was questioning life, asking the age old question "What is life for?" For several years he pushed these thoughts to the back of his mind, trusting that work and success would bring happiness, he reasoned that this was all there was to it.

In 1846, news came from America that an anaesthetic had been discovered - Ether. Simpson's, mentor Robert Lister, used it, but determined that the dangers were too great and that a more satisfactory anaesthetic was needed. Spurred on by this, Simpson and three fellow doctors began experimenting with various drugs on themselves, none proved successful. Having experimented with everything else, they tried Chloroform. It was not long before the three men lost consciousness; they had discovered the anaesthetic qualities of this drug.

The first public trial of the new anaesthetic was used on a mother in labour. So excited was she

Michael Faraday

(1791 - 1867)

Michael Faraday was born in Newington Butts, London on the twenty second September 1791, the third son of a blacksmith. Despite receiving little more than a primary education he was destined to become one of the great scientists of the nineteenth century. His research work and discoveries, like those of Newton, had only an impact on his own day, and laid foundations for generations to come.

At the age of fourteen Michael Faraday was set to have a career in the bookbinding industry, his parents placing him as an apprentice. It was whilst employed in this work, that he became interested in the scientific endeavours that were then taking place. He was particularly interested in the work of the famous Chemist, Humphry Davy, with whom he corresponded. At the age of twenty-one, he was appointed assistant to Davy, at the Royal Institution in London.

One of the major attributes of Faraday, was that he was a thinker. Having read about a problem, he would, rather than waiting for inspiration to provide an answer, as many did, think deeply on the matter, mixing thought with experimentation.

Three years after his marriage to Sarah Bernard, Michael Faraday set out on a quest to produce usable electricity, without batteries or the elementary rubbing together of discs. His breakthrough came with a six inch diameter iron disc, wound with two separate coils of wire. The experiment was to see if it were possible for electric current to pass from one coil, which had been connected to a battery, to the other which had no electrical contact. The experiment proved a success, but apart from showing the feasibility, it also highlighted the fact that there was still a great deal of work to be done before electricity could be produced without the use of batteries.

However within ten days of the initial experiment, he succeeded in making the first dynamo. Faraday's ability to think deeply had spotted what others had missed, namely the space around a magnet. He had reasoned that a conductor moving in a stationary magnetic field, cutting the lines of the magnetic force, would have an electric current induced into it. For his research into electricity, Faraday was elected a "*Fellow of the Royal Society*". Faraday's work placed him at the cutting edge of electrical research.

In 1846, Faraday set the scene for men like James Clerk Maxwell and later Albert Einstein, when he gained an understanding of the nature of light, a subject that was then far ahead of his time. When he died in 1867, at his Grace and Favour home in Hampton Court, he had ninety-

Sir James Simpson (1811 – 1869)

James was born in 1811 at Bathgate, Scotland the seventh son of David Simpson, the village baker. The family although poor, were able to send James to college, who at the age of thirteen showed signs of academic brilliance, by joining together for his support. In 1825, he obtained entrance to Edinburgh University. By the time he reached the age of sixteen, he had decided that he would make a career in medicine. Just two years later, having studied under the famous surgeon Robert Lister, (reputed to be able to remove a limb faster than anyone else), aged just eighteen years, he qualified as a member of the Royal College of Surgeons, medical training in those times being brief.

Operating theatres in the nineteenth century were very different from those we know and take for granted today. There were no clean antiseptic walls, no surgical gowns or masks, the surgeons suits were protected only by a small apron, and hygiene was very basic if there was any at all. As if the conditions were not primitive enough, there was no anaesthetic, the best that was available would have been

and then we shall have a far clearer view about worldly cares themselves and we shall be enabled to fight them under Him Who overcame the world.”

Being opposed to the theory of evolution, on both scientific and biblical grounds, he nevertheless saw how things would develop, foreseeing that this discredited theory would survive, only because it is needed to underwrite man's unbelief in God. Writing to a bishop he expressed his sorrow that “*Conjecture scientific hypothesis*” should be “*fastened to the text in Genesis*”. Although a serious man he had a sense of humour, often writing satirical verse lampooning evolutionary theory.

seven distinctions from international academies of science.

All of this was achieved, despite his humble start in life and receiving only a basic education. The Faraday family were members of a Christian sect known as Sandemanians, whose meeting house was situated in Paul's Alley, London. The sect was named after Robert Sandeman (1718 - 1771) but was originally called Glassites, after its founder John Glass (1695 - 1773). The sect accepted all the major doctrines of the Christian faith, such as the deity of Christ, salvation in Christ alone, the Infallibility of the Bible etc. However, it had added two more, distinguishing it from other Protestant congregations.

The first was its doctrine of saving faith. Although orthodox in words, this doctrine was presented in such a way, as to leave the impression that all that was required was a mental assent to the fact that “Christ died for Me”, and that holiness of life did not matter. This gave rise to the accusation of “Antinomianism”. The second doctrine was that of the additional ordinance of “Feet washing”.

From a child Faraday had been a member of the congregation, but had for many years been plagued with doubts and fears. It was only when he proved the reality of Christ Himself, that he nailed his colours to the wall. The event of his public testimony of his faith in Christ, took place just one month after his marriage. His

faith in Christ was a living faith, and seemed to transcend the nominal acceptance taught by the sect. Standing before the congregation, he told those present how he had repented and asked the Lord to forgive him all his sin, and of how he had given his life over to Him. He did not accept the more outlandish ideas of the Sandeman sect, despite his life long association with them. The sect died out earlier this century, although sad to say, some of their teachings have been adopted by many mainline churches

Faraday, found the purpose of life, not in his scientific work, but through the study and application of the Word of God and faith in his Saviour, the Lord Jesus Christ.

theory of gases". It gave the final proof that the nature of heat resides in the motion of molecules. He returned to Cambridge, where he became the first Professor of Experimental Physics, founding the now famous Cavendish Laboratory. His Dismissal of the "nebular hypothesis" of Laplace, with his mathematical refutation and the dismissal of the evolutionary arguments by writer Herbert Spencer, are today little known works, but were greatly acclaimed in his day. Whilst Michael Faraday was considered to be the greatest experimental physicist, Maxwell was considered to be the greatest theoretical physicist. James Clerk Maxwell, is probably the one man who has made the greatest contribution to the advances in modern day physics.

Although brought up in a Christian home, his religion was like so many things in the home, mechanical and lifeless. It was whilst a student at Cambridge that he accepted the teaching of the Bible, felt a strong consciousness of inward sin and sought God's forgiveness. He was a man who knew Christ not only as Lord and Saviour, but as a constant companion.

In one letter to his wife he wrote these words *"Think what God has decided to do with all those who submit themselves to His righteousness and are willing to receive His gift. They are to be conformed to the image of His Son. ... Let us begin by taking no thought about worldly cares and setting our minds on the righteousness of God and His kingdom -*

His keen investigative mind, he credited to God, for he believed that God had endowed men with the ability to investigate His creation, and had given them the capability to harness the power of His created world, for mankind's mutual benefit. It was this philosophical idea that was the motivation behind his experimental research.

A great deal of his work was in extending Michael Faraday's work on electricity. It was this work on electrical currents and the speed of light that led to Hertz's discovery of radio waves. In 1873 his *Treatise on Electricity and Magnetism*, was described by Albert Einstein, as "*the most profound and most fruitful that physics has experienced since the time of Newton*".

Today we take colour photography for granted, yet it was the work of this brilliant scientist that laid the foundations of it. James Clerk Maxwell was the first person to explain how the addition and subtraction of primary colours produces all other colours, and was the first man to produce a colour picture using a three-colour process. He also investigated colour blindness. He demonstrated that light is an electro-magnetic wave, and developed fundamental equations for describing electrical and magnetic forces and fields.

His work, calculating the various properties of gases, is fundamental to modern physics and formed the mathematical basis for the "kinetic

James Clerk Maxwell (1831 - 1879)

Born in Edinburgh in 1831, James grew up surrounded by bizarre mechanical gadgets, invented by his barrister father. Although a slow starter at school, apparently having little or no interest in what was being taught, he suddenly blossomed and at thirteen had his first scientific paper published by the Royal Society of Edinburgh. He had devised a procedure for constructing a perfect oval.

From this point onwards there was to be no holding him back. He gained an entrance to Trinity College Cambridge, where he was not only regarded as an outstanding student but his fellow students acknowledged him as a young man of outstanding genius.

In 1856 he moved to Aberdeen where he was appointed Professor of Natural Philosophy. His scientific paper on the rings of Saturn, in which he showed that their stability could only be achieved if they were made up of numerous particles, is still the accepted explanation today.