

The life of the Darwins
(Lies about my Father.)

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THE LEISURE HOUR.

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BIRTH AND CHILDHOOD.

French, Spanish, and Spanish wine, with great plenty, and all their servants had a banquet in the hall with *divers dishes*.* At the Christmas entertainments of the poorer classes in the Northern and Midland counties it was customary for the guests to make a collection among themselves to defray the expenses, which otherwise amounted to a good sum. It was uniformly the custom for the sponsors at baptisms to present the children with spoons, commonly called *Apostle Spoons*, because the figures of the twelve apostles were carved on the tops of the handles. Rich sponsors gave twelve, and those in poorer circumstances gave as many as they could afford. It is in allusion to this custom that when Erasmus professes to be unworthy of being sponsor to the young princess, Shakespeare makes the king reply:—

"Come, come, my lord, you'll spare your spoons."

Many of these spoons are still preserved in various museums, and are curious as relics of the past.

There are countless other items of *folk-lore* associated with this subject, which space, however, will not permit us to speak of—not to mention those found in foreign countries. Indeed, to enter fully into the customs and superstitions relating to birth and childhood would require a large volume instead of a few columns of a magazine. At the same time, those already briefly mentioned are good specimens of the extensive *folk-lore* that has clustered round the infancy of human life; and if oftentimes apparently meaningless to us, yet surely, it must be remembered, the beliefs and superstitions of our ancestors, who, if they were in our midst now, would, no doubt, be able to explain and account for what is often looked upon as childish fancy and so much *swartry rubbish*.

T. P. THORNTON EDITOR.

THE DARWINS.

GRANDFATHER, FATHER, AND SON: ERASMUS, ROBERT, AND CHARLES.

THE name Darwin has become familiar to us in the present day as denoting a theory very popular among free-thinkers, and ardently espoused by some scientific men, expounded mainly by Mr. Charles Darwin, now himself a veteran of threescore years and ten, to explain afresh the origin of species. The name is not new, for Linnaeus employed it to designate the similar theories of the grandfather, Dr. Erasmus Darwin, many years ago. "This," he wrote, in his notes upon Hillingfleet, "is Darwinism with a vengeance."* Confronting the majestic statements of Genesis, "God created every living creature after his kind," "God created man in His own image," Darwin the grandfather and Darwin the grandson espouse the ancient doctrine, traceable in Anaximander and Lucretius, of natural evolution. Both appeal to the fact of the survival of the fittest, Erasmus assigning as its cause "directly the actions and requirements of the forms themselves, and indirectly changed outward conditions," and Charles attributing it to "what he calls 'natural selection.'" Younger men of science are now appealing from Darwin the grandson to Darwin the grandfather, as propounding a theory nearer the truth, and thus the names of both are prominently before us. Upon the question in dispute we do not enter; as believers in Revelation we rest assured that science will itself confirm the truth of Divine creation of species, Divine providence and design. Our purpose here simply is to acquaint our readers with the interesting history of the remarkable family, father, son, and grandson, whose names are due before the public, and to discover the social and religious soil out of which these theories have fresh sprang up. In doing so we are much indebted to the writings of three ladies, Miss Howard, Mrs. Schimmelpenninck, and Miss Metcalf, together with a brief life of Erasmus Darwin compiled by Mr. Charles Darwin himself.

ERASMUS DARWIN, the grandfather, was born at Elston, near Newark, Nottinghamshire, on December

12th, 1731. He was sprung, we are told, of "a goodly family," members of which fought for Charles I, and were patronised by Charles II. His father adopted a medical library, one triplet of which, in seeking deliverance from study evils, ran thus:—

"From a meeting that felt ill,
From a boy that drinks wine,
From a wife that talketh Latin!"

Hence it is surmised that he was an advocate of temperance, and that his wife, the mother of Erasmus, was not a bias stocker. Erasmus in his boyhood was very fond of poetry, and very fond also of mechanics, and both tastes prevailed in him, and shewed themselves to the end of his life. At ten years old he was sent to the Grammar School at Chesterfield, under the Rev. Mr. Barrow, and there he remained nine years, a long term of schooling, during which he had plenty of Latin and Greek drilled into him; for he speaks fluently in after years against "those classical schools which not only overcome the struggling efforts of genius and blight his protean forms till he speak the language they require, but divert his attention from the nice comparisons of things with each other, and from associating the ideas of causes with their effects, and amuse him with the lower analogies, the vain verbal allusions which constitute the ornaments of poetry and of oratory."

He obtained a scholarship of £18 a year at St. John's, Cambridge, and afterwards studied medicine at Edinburgh. He attempted to begin practice as a physician at Nottingham, but in three months removed (November, 1754) to Lichfield, where, by successfully treating some important cases, he soon won an extensive practice, and married Mary Howard, aged 17, daughter of a respectable inhabitant of Lichfield, a superior and charming girl. By her he had three sons: Charles, a youth of high promise, who died in his twentieth year; Erasmus, a man of retiring disposition, a soldier, who, in a fit of temporary insanity, committed suicide in his fortieth year; and Robert Waring, the father of the

* Colley's notes upon Hillingfleet, now preserved by Mr. Richard Scauld, of the British Museum, and published by him in his "Lichfield" a few years ago.

present Mr. Charles Darwin. Their mother died, after a long and suffering illness, in 1770. In 1781 Dr. Erasmus Darwin married the widow of Colonel Poles, a brilliant accomplished lady with a jointure of £600 a year, and thereupon he removed to Derby, where, after many years' practice in his profession, and much literary labour, he died very suddenly in the year 1802, aged seventy-one years.

In person Dr. Erasmus Darwin was above the middle height; his form ponderous and inclined to corpulence; his features deeply pitted with the small-pox; his head half-buried in his shoulders, and covered with "a scratch wig and bobtail;" his eyes sagacious, keen, and benevolent. From the loss of his teeth he looked much older than he was. He limped, owing to an injury of the knee when thrown

But he had withal a strong belief in hearty eating "Eat or be eaten" was his motto. "Eat, eat, eat, as much as you can," was the frequent advice he gave. His horror of fermented liquors, and his belief in the advantages both of eating largely and eating abundance of sweet things, was known to all his friends. On one occasion, having sat at a table spread with fruits and creams for three hours, entertaining the company with his wit and his anecdotes, he expressed joy at hearing the dressing-bell, and hoped that dinner would soon be announced. In his carriage, called a *skilly*, because it carried only one—a curious machine of his own planning, with a skylight in the top, and a box before the occupant, containing knife, fork, and spoon, as well as writing materials—he carried on one side a pile of



ERASMUS DARWIN.

[After a Portrait by J. Rastbach, 1806.]



C. Darwin

[From Photograph by Elliot & Fry.]

from his carriage. He stammered extremely when he spoke, but what he said was well worth waiting for, for that uncouth exterior was the tabernacle of a powerful mind. A young man once asked him offensively whether he did not find stammering very inconvenient. He answered, "No, sir; it gives me time for reflection, and saves me from asking impertinent questions." He possessed great facility in explaining a difficult subject, and great felicity of expression with the pen.

Dr. Erasmus Darwin was usually in practice what is now called a *teetotaler*, and always expressed the strongest aversion to "vicious potations." During his life he almost banished wine from the tables of the rich of his acquaintance, and his influence and example sobered the town of Derby. This was forty years before total abstinence societies were heard of. He recommended "a total prohibition of the destructive manufacture of grain into spirits or strong ale, and thus converting the natural nutriment of mankind into a chemical poison, and thinning the ranks of society both by lessening the quantity of food and shortening their lives by disease." "Prometheus and the vulture gnawing his liver affords," he said, "an apt allegory for the effects of drinking spirituous liquors." He enjoyed uninterrupted health, which he attributed to his temperate mode of living.

books, on the other a hamper of food, cream, and fruit, and behind a pail with hay and oats for the horse. Thus he was provisioned for the distant visits he had repeatedly to make, providing for man and beast with a bountiful hand. He had an extensive practice, and his carriage was so constantly going that a gentleman humorously directed a letter, "Dr. Darwin, Upon the road."

Dr. Erasmus Darwin was an early riser, a hard worker, and owed as much to industry as to genius. In the earlier days of his professional life he gave lectures upon anatomy, as appears from the following singular advertisement: "Oct. 23, 1762. The body of the malefactor, who is ordered to be executed in Lichfield on Monday, the 25th inst., will afterwards be conveyed to the house of Dr. Darwin, who will begin a course of anatomical lectures at four o'clock on Tuesday evening, and continue them every day as long as the body can be preserved; and shall be glad to be favoured with the company of any who profess medicine or surgery, or whom the love of science may induce." Even in 1793, when his son urged him to leave off professional work, he replied, "It is a dangerous experiment, and generally ends in drunkenness or hypochondriacism. One must do something; and one may as well do something advantageous to oneself and friends or to mankind as

employ oneself in cards or other things equally insignificant."

He had a large correspondence with distinguished men, and his house in Lichfield was the intellectual centre of the Midland counties. Mr. Edgeworth, father of Maria Edgeworth; Josiah Wedgwood, the potter of Etruria; Day, the author of "Sandford and Merton"; James Watt, Bolton, Kerr, Small, and other notable men of those times, were among his steadfast friends through life. But he could never get on with the celebrated Dr. Johnson, who often visited Lichfield. Perhaps the two men were too like each other in self-assertion to get on well together, even if Johnson could have tolerated Darwin's principles and character.

In religion he appears to have been what is called a Theist, and he did not believe in Divine revelation. On the death of his father, when still young, he wrote "that there exists an *Eus entium* (a Being of beings) which formed these wonderful creatures is a mathematical demonstration. That He influences things by a particular providence is not so evident." He used often to say, "Man is an eating animal, a drinking animal, and a sleeping animal, and one placed in a material world which alone furnishes all the human animal can desire. He is gifted, besides, with knowing faculties, practically to explore and to apply the resources of this world to his use. These are realities. All else is nothing; conscience and sentiment are mere figments of the imagination."

This is Mrs. Schimmelpenninck's record, but she qualifies it with the remark that "many allow themselves to say colloquially what they would not fully sanction when in earnest." She says that Dr. Darwin's conversation was characterised by the meriment and so-called wit which aimed its perpetual shafts against those holy truths which afforded her the only comfort. To her cousin, his patient, Dr. Darwin said, "My dear madam, you have but one complaint; it is one ladies are very subject to, and it is the worst of all complaints, and that is having a conscience. Do get rid of it with all speed; few people have health or strength enough to keep such a luxury, for utility I cannot call it." "But, doctor, you will surely allow dear Priscilla to read religious books." To which the doctor replied, "My dear madam, toss them over one into the fire. I cannot permit one of them, excepting 'Quarles's Emblems,' which may make her laugh." One of the party expressing the hope that one day he would receive Christianity, he replied, "Before I do that you Christians must all be agreed. The other morning I received two parcels, one containing a work by Dr. Priestley, proving there is no spirit; the other, a work by Berkeley, proving there is no matter. What am I to believe amongst you all?" Coleridge styled Erasmus Darwin "Everything but Christian." That he believed in conscience, however, we infer from his noble lines on Slavery:—

"Thro' the vaulted heart, his dread resort,
Inseparable conscience holds his court,
With still small voice the plots of guilt alarms,
Bene his masked brow, his lifted hand alarms.
But wrapp'd in night, his terrors all his own,
He speaks in thunder when the deed is done.
Hear him, ye senators! hear the truth sublime,
He who allows oppression shares the crime."

He published an ode beginning thus:—

"Dull Atheist, would'st a giddy dance
Of atoms, lawless hurl'd,
Construct so wonderful, so wise,
So harmoniz'd a world!"

And with reference to morality, he says, "The sacred maxims of the author of Christianity, 'Do as you would be done by,' and 'Love your neighbour as yourself,' include all our duties of benevolence and morality." Still, as his grandson, who naturally gives the most favourable account, himself allows, Dr. Erasmus Darwin did not believe in Revelation; nor did he feel much respect for Unitarianism, for he used to say that "Unitarianism was a feather-bed to catch a falling Christian."

Shrewdness, sympathy, and benevolence were striking features in Dr. Erasmus Darwin's character. He thought that almost all virtue consisted in benevolence. He once wrote thus wisely to his son: "The best way when any slander is told me, is never to make any piquant or angry answer, as the person who tells you what another says against you always tells them in return what you say of them. . . . Dr. Small always went and drank tea with those who he heard had spoken against him; and it is best to show a little attention at public assemblies to those who dislike one, and it generally conciliates them." While resident at Lichfield he never took foes of clergymen, and he diligently attended to the health of the poor. Having to see a patient at Newcastle during the races, he slept at an hotel, and in the night the door opened and a man came to his bedside and said, "I heard that you were here, but durst not come to speak to you during the day. I have never forgotten your kindness to my mother in her bad illness, but have not been able to show you my gratitude before. I now tell you to bet largely on a certain horse (naming one), and not on the favourite whom I am to ride, and who we have settled is not to win." He afterwards saw in the newspaper that, to the astonishment of every one, the favourite had not won the race.

As Lord Chesterfield undertook to train his "son," Dr. Darwin guided the career of two "daughters," the Miss Parkers. He gave them a good education, established them in a school at Ashbourne, and wrote and published for their guidance a work entitled "A Plan for the Conduct of Female Education in Boarding Schools." He describes female education as consisting "in uniting health and agility of body with cheerfulness and activity of mind; in superadding graceful movements to the former, and agreeable tastes to the latter; in the acquirement of the rudiments of such arts and sciences as may amuse ourselves or gain us the esteem of others; with a strict attention to the culture of morality and religion." "The art of pleasing in conversation," he remarks, "consists in two things, one of them to hear well and the other to speak well."

In 1778 he purchased about eight acres of land near Lichfield, which he made into a botanic garden. Miss Seward, his biographer, wrote some lines upon the spot, which he liked so much that he said, "I shall send them to the periodical publications, but they ought to form the exordium of a great work. I will write the notes, you shall write the verse." This was the beginning of the "Botanic Garden," a poem in two books, published in 1781, which immediately became popular and famous. He sent Miss

Seward's verses to the "Gentleman's Magazine," and in her name, and afterwards incorporating them into the beginning of his poem "in compliment to the lady," he wrote both the poetry and the notes himself. The work was very popular for a time, and paid him well, but the famous parody by Canning, entitled "The Loves of the Triangles," suddenly caused its fame to collapse.

His next work was the strange medley of valuable facts and wild speculations, entitled "Zoonomia," published in 1794, which anticipates much in the writings of the French naturalist Lamarck. This is the work which contains an exposition of his views upon evolution and the origin of species. "Give me a fibre," he said, "insensible of irritation, and I will make a tree, a dog, a horse, a man."

ROBERT WARREN DARWIN, third son of Dr. Erasmus Darwin by his first wife, was born at Lichfield on May 30th, 1796. He lost his mother when he was four years old, and his father acted towards him in his youth rather harshly and imperiously, and not always justly, the remembrance of which was never quite obliterated. We first hear of him in one of Josiah Wedgwood's letters, January, 1775: "I have two of Dr. Darwin's sons come to stay some days with me." And again, after his brother Charles's death, we find Robert styled "the young doctor," and as such invited over to Etruria to share with young John Wedgwood Walthire's private lessons in chemistry. "The boys," writes Wedgwood the potter, "drink in knowledge like water, with great avidity and quite to my satisfaction." Next we hear of him as a student at Edinburgh, where he took with honours his several degrees, and wrote with marked ability the necessary Latin thesis. Here he spent much of his time with the celebrated Dr. Black, of whose extreme simplicity of character and kindness of heart he often related anecdotes. He subsequently visited Paris, where he had familiar intercourse with the celebrated Benjamin Franklin, then in the height of his fame, and afterwards he travelled in Germany, and spent some time at the University of Leyden, where that polished scholar and eminent physician, Dr. Fryer, formed a close intimacy with him, and a lasting friendship subsisted between them.

In the year 1786 Robert settled down to a life-long practice as a physician in the ancient and picturesque town of Shrewsbury. Erasmus brought him to Shrewsbury before he was twenty-one years old, and left him £20, saying, "Let me know when you want more, and I will send it to you." His uncle also sent him £20, and this was the sole pecuniary aid he ever received. To a large portion (says Miss Seward) of his father's science and skill he joined all the ingenuous kindness of his mother's heart. His early abilities and their early cold recompensed to his father a severe deprivation in the death of his son Charles. His practice during the first year allowed him to keep two horses and a man-servant. After he had been settled for only six months he had already between forty and fifty patients, and this was the more surprising because his professional rivals in the town were numerous, three physicians, six surgeons, and diverse apothecaries. His father wishing his son to be an F.R.S., applied for aid to the elder Josiah Wedgwood. "It would be a feather in his cap, and might encourage him in philosophical pursuits," Robert wrote a paper upon "Ocular Spectra," in relation to some disorder which had attacked the

elder Wedgwood's eyes, and this was said to be a clever production for the period. It was printed in the Royal Society's proceedings, and he was elected Fellow, chiefly through the influence of friends, in 1788.

In 1789 he wrote and published "An Appeal to the Faculty concerning the case of Mrs. Houlston," with reference to Dr. Withering, of Birmingham, who had been called in and supplanted him. The young Doctor Darwin's treatment, which his senior reversed, was considered by the profession to be right, and though the controversy was sharp, and his opponent a man of wide reputation, he seems to have had the best of it, and concludes his pamphlet by laughing at his opponent's pomposity and boasting.

His success was the more remarkable because for some time he detested the profession, and said that if he had been sure of gaining a hundred pounds a year in any other way he would never have practised as a doctor. Now, however, he was fairly and successfully at work; and he bought some fields on the Welsh side of the town, and built a plain and substantial family house, which, from its elevation, about a hundred feet above the River Severn, he named The Mount. It was close to Frankwell, one of the poorest parts of Shrewsbury, but the situation was exquisite in the extreme, and the view lovely. Here he spent the rest of his life.

In April, 1796, he married Susan, eldest daughter of the great English potter, Josiah Wedgwood, of Etruria. They had known each other from childhood, and their fathers had been as brothers. She brought him as fortune £25,000, but her higher fortune was a gentle sympathising nature. She entered zealously into all her husband's pursuits, and as he took almost as much interest as his father in botany and geology, their gardens and grounds became noted for the choicest shrubs and flowers. They potted and reared birds and animals; and the beauty, variety, and tastefulness of "The Mount pigeons," were well known in the town and beyond. When at home, his garden, greenhouse, and books afforded him never-failing pleasure and occupation, and all that was new and aggressive in literary thought found its way to The Mount.

Dr. Robert Darwin had an extraordinary memory for dates, and could tell the day of the birth, marriage, and death of most of the gentlemen of Shropshire. His spirits were generally high, and he was a good talker. One of his golden rules was never to become the friend of any one whom you could not thoroughly respect. Of all his qualities his sympathy was pre-eminent. He was quick to read character and to look a man through and through. He visited the poor without reward, and assisted them in other ways, sending fruit and vegetables, and in cases of sickness wine, to their homes. He occasionally made small loans to struggling tradesmen, and assisted them by giving work, and by recommending them to others.

After a long decline, his partner in life, Mrs. Darwin, died at The Mount, July 17, 1817, aged fifty-two years. Her remains lie in the chancel of the beautiful little church of Montford, four miles from Shrewsbury. After her death her daughters became their father's mistresses, and aided him in all his labours. In the year 1825 he and they established the first infant-school in Shrewsbury, at the cost of about £200. It included a specially-erected school-house in a squalid district by the Welsh Bridge, which

was furnished with the best apparatus for educational purposes.

For full fifty years his practice was wonderful. Like his father, he was always on the road. His small yellow carriage, within which, so exactly did it fit him, there was not an inch to spare, his two sleek horses, and his steady coachman, were to be seen everywhere. This, and his burly form and countenance, were known to every man, woman, and child over a wide extent of country. He was as much a feature of the town as the river, the abbey, and the schools. He always sat in his carriage as if carved in stone; unlike his father in this, that he was never reading, but with the same unimpassioned, mild, and thoughtful face inspiring confidence and respect. Dr. Erasmus Darwin was cast in a gigantic mould, but his son in a still greater. He stood more than six feet in height, his bulk was proportionate, and he became enormous as age increased. Like his father, he was a great feeder, eating a goose for his dinner as easily as other men do a partridge. In his latter days it was impossible for him to ascend or risk narrow staircases and rotten floors, and as both were common in the more ancient parts of Shrewsbury, a confidential servant was sent to make a survey beforehand.

In Dr. Robert Darwin the love of children was a striking feature. He would address them in his small, high-pitched voice, and occasionally lifting them on to a chair or table, he would measure their heads with his broad hand, as though reading character and mentally prognosticating their future fate. The writer of this sketch remembers well being taken by his father when a delicate child to Dr. Darwin's house to ask his advice. The kind doctor's prescription was, "You may have as many pies and puddings, apples and pears, as you can eat, and an egg every morning to your breakfast, but," he added, "you must eat the shell of it." This last proviso was not so palatable, still the prescription was for a long time obeyed to the letter, and the shell of every egg eaten up when the contents were finished. It was a quaint way of giving lime to make bone, and in keeping with the doctor's family motto, *E ossibus ossis*. After this advice, when the child's father handed the usual guinea fee, Dr. Robert received it out of his right hand and put it back into his left with a pleasant laugh, saying, "Thank you, my friend."

He was often purchasing beautiful ware for his table from the works of his father-in-law Wedgwood; and so greatly did he feel the importance of making the mouth do its work before sending the food to the stomach, that he had a dinner-service made with the words printed round the border of each plate, "Masticate, denticate, chump, chew, and swallow." He also made a design for a nursery lamp for use in feeding children, which was manufactured in Kstrus and had a large sale.

As to religion, he was, it would appear, like his father, a Theist. There was unhappily at that period little of true Christian life in the circles in which he moved. Still his religious opinions did not interfere with his practice, for his professional skill was universally felt and acknowledged, and in his private character, along with sagacity, he always evinced a winning benevolence and strong feelings of sympathy which made him widely beloved by poor and rich. Each day brought abundant work, and when it was got through and evening came, fatigue

and drowsiness overpowered him. "Once on my remarking," says his son, "how greatly fatigued he seemed to be after his day's work, he answered, 'I inherit it from my father.'" At length when that long life's work was done—and it was a very long and hard one—his portly form vanished from the streets of Shrewsbury, and his remains were conveyed to the quiet resting-place at Mostford, beside his favourite Severn. He died November 15th, 1848, aged eighty-two years. On the morning of his death, in the streets leading to his house, the lowest cottager had darkened his windows, and the children who morning after morning had left his house never empty-handed stood at their own doors weeping.

CHARLES DARWIN, grandson of ERASMUS, and son of Dr. Robert Waring Darwin, was born at Shrewsbury on February 12th, 1809. He attended the public grammar school at Shrewsbury for several years, under Dr. Butler, afterwards Bishop of Lichfield, and when sixteen years old he was sent to Edinburgh, where for two years he studied at the University, giving special attention to marine zoology. In 1828 he went to Christ College, Cambridge, and graduated B.A. in 1831, and M.A. in 1837. His hereditary aptitude for the study of natural science was early perceived by his instructors. The Rev. Mr. Hazell, Professor of Botany at Cambridge, recommended him to Captain Fitzroy and the Lords of the Admiralty, and in 1831, when a naturalist was wanted to accompany the second surveying expedition of H.M.S. Beagle in the Southern Sea, Mr. Darwin, having volunteered, was given the appointment. He served without salary, and partly paid his own expenses, on condition that he should have the entire disposal of his zoological and geological collections. On this long voyage, we are told, he was never able to overcome a tendency to sea-sickness, from which he suffered at times severely; but in spite of this drawback he persevered in his investigations. During the voyage, the greater part of the South American coast, the Pacific Islands, Australia, New Zealand, and the Mauritius were visited and examined. Before his return he was elected F.R.S. in 1834. He arrived in England October 2, 1836, and since then his entire life, so far as health has permitted, has been devoted to scientific researches. In 1839 a "Narrative of the Voyage of the Beagle" was published in three volumes, of which volume III, containing an account of the discoveries in natural history and geology, was contributed by Mr. Darwin. A second edition of this volume was published separately in 1845, entitled "The Voyage of a Naturalist." It is a most interesting and beautifully-written work. In 1839 Mr. Charles Darwin married Miss Emma Wedgwood, his cousin, the granddaughter of Josiah Wedgwood the potter, by whom he has a large family. He resided in London down to 1842, when he removed to his country house at Down, near Beckenham, Kent. Here he has led a quiet, retired, and uneventful life, pursuing his investigations with patient, persevering zeal, and under constant infirm health. Yet no scientific man has been so widely spoken of, owing to the important works which from time to time have issued from his pen. He is tall, bald-headed, with a fine beard and benevolent eye, but he is not corpulent like his father. In the year 1842 he published a work upon "The Structure and Distribution of Coral Reefs." In 1844 appeared from his pen, "Geological Observations on Volcanic Islands;" and in 1846 "Geological Observations on

South America." After numerous papers on scientific subjects, there appeared, in 1851 and 1853, his two volumes upon "The Family *Cuvillia*," and some after two other volumes on the Fossil Species of the same class. In 1853 the Royal Society awarded to him the Royal medal, and in 1859 he received the Wollaston medal from the Geological Society.

Mr. Charles Darwin is best known by his work, published by Mr. Murray, entitled "The Origin of Species by means of Natural Selection; or, the Preservation of Favoured Races in the Struggle for Life." In the introduction he tells us, "After five years' work I allowed myself to speculate upon the subject (that mystery of mysteries, the Origin of Species), and drew up some short notes. These I enlarged in 1844 into a sketch of the conclusions which then seemed to me probable. From that period to the present day I have steadily pursued the same object. My work is now nearly finished; but as it will take me two or three more years to complete it, and as my health is far from strong, I have been urged to publish this abstract."

This work created considerable stir, not only in the scientific but in the religious world. It speedily passed through several editions, and was translated into most European languages. "Natural Selection" became either a watchword or a byword. Caricatures of monkeys and gorillas developing into man filled the comic prints, and magazines and reviews, quarterly and monthly, abounded in articles pro or con upon the work. By its championing the rejection of the fashionable theory was regarded with scorn as the mark of ignorance and bigotry; by some who rejected it on religious grounds its espousal was branded as Atheism. The investigations of some eminent men of science led them to reject the hypothesis of Mr. Darwin as unsupported by facts. In particular Mr. W. Carruthers, F.R.S., Keeper of the Botanic Collection in the British Museum, and President of the Biologists' Association, has published the results of many years' inquiry, and affirms that the whole evidence supplied by fossil plants is opposed to Mr. Darwin's hypothesis of genetic evolution. Mr. Darwin's popular work upon the "Origin of Species" was followed by a succession of works in its support—the "Fertilisation of Orchids" in 1862, "Variation of Plants and Animals under Domestication" in 1867, the "Descent of Man, and Selections in relation to Race" in 1871. This last-named book reveals fully the bearing of the theory upon morals and religion, man's moral nature as well as his intellect and physical form being explained as a natural outgrowth from his ape-like progenitors. Here Mr. Darwin's avowed purpose is to show that man is certainly descended from some ape-like creature, and this not only as to his body, but as to his mind, conscience, and emotion. "In a series of forms graduating insensibly from some ape-like creature to man as he now exists, it would be impossible to fix on any definite point when the term 'man' ought to be used. But this is a matter of very little importance." "The so-called moral sense is obviously derived from the social instincts," which must have been acquired even by his early ape-like progenitors. To turn from this book of Mr. Darwin's to the Bible declarations concerning man in Genesis, Job, or the Psalms, is like passing out from the sickening air of a metropolis to a clear mountain top with its breathing breeze.

The large and varied crop of publications which

Mr. Charles Darwin's theory has evoked is surprising, and in some respects amazing. The number of these books in the British Museum catalogue occupies forty folio pages, and includes a hundred and fifty different works. The titles of some of these may suffice to indicate their tone and tenor. "What is Darwinism?" by Dr. Hodge; "Moses, not Darwin," by B. G. Johns; "Darwinism refuted," by Loing; "Moses versus Darwin," by W. F. Lynn; MacCann's "Anti-Darwinism"; "Darwinism brought to Book"; "Difficulties of Darwinism," by the Rev. F. O. Morris; and many others.

Thus made notorious in the publications of the day, Mr. Charles Darwin has also been loaded with badges of honour by various scientific societies. He has been created a knight of the order *Four de Merite* by the Prussian Government, and in January, 1874, a Corresponding Member of the Academy of Vienna. The University of Leyden conferred upon him the honorary degree of M.D. in February, 1875, and the University of Cambridge gave him the honorary degree of D.D. on November 17th, 1877. He was elected a Corresponding Member of the French Academy of Sciences in August, 1878.

As to religion, it must be noted that Mr. Charles Darwin speaks of the "unshakable belief in the existence of an Omnipotent God," but affirms that "the idea of a universal and beneficent Creator does not seem to arise in the mind of man until he has been elevated by long-continued culture." The question, however, whether it does or not, he resolves as it is "wholly distinct from that higher one, whether there exists a Creator and Ruler of the universe; this," he continues, "has been answered in the affirmative by some of the highest intellects that have ever existed." The work upon the Origin of Species itself concludes with the observation, "There is a grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one."

In his brief memoir of his grandfather, moreover, Mr. Charles Darwin indignantly repels the surmise that Dr. Erasmus was an Atheist; and this, together with other observations scattered through his works, fairly shows that he never in religious belief upon such the same lines as his father and grandfather. The expression "Natural Selection," which he has introduced in preference to "Survival of the Fittest," does not exclude belief in a Divine Creator, Designer, and Sustainer of all.* It may be employed to denote, not a cause, but a law according to which He works. For instance, the astronomer who understands the law of attraction regulating the movements of the heavenly bodies, need not reject, he may adopt, and may feel more fully and deeply than the devout but unlettered shepherd could, the truth and beauty of the psalmist's words, "The heavens declare the glory of God, and the firmament sheweth His handiwork." And in like manner the naturalist, who believes that he can trace the working of a simple and general law of selection in the vegetable and animal kingdoms, need not of necessity reject, but may, with intelligence and reverence deeper far, take up the same inspired psalmist's words, "Let every thing that hath breath praise the Lord. I will praise Thee, for I am faintly and wonderfully made: marvels are Thy works, and that my soul knoweth right well."

* This does not, however, go beyond a pure natural religion. Such a religion, in excluding the revealed Word of God, and His divine Son, is incompatible with revealed religion.—Ed. L. W.

Quotations.

FRANKLIN.—Dr. Robert Darwin, son of the celebrated Erasmus Darwin, and father of the equally celebrated Charles Darwin, was a strong advocate for plenty of fresh air. To a young man who consulted him before emigrating to America, the doctor said, "When in Paris many years ago, I saw they met in the street the celebrated Benjamin Franklin, and he said to me, 'People have been a thousand years finding out that fresh air is good for the sick. They will be another thousand finding out that it is good for those in health.' Now," said Dr. Darwin to the young man, "my advice is, when you go to America, sleep with your window open." The advice may be reversed in some circumstances, but ought to be discarded in