The Darwin family

R. B. FREEMAN

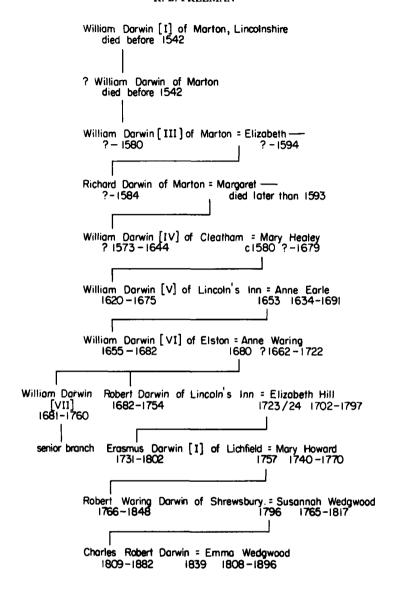
Department of Zoology, University College London, Gower Street, London WC1E 6BT

Biographers of eminent scientists stress the work of their subject, its relation to previous understanding, to the reactions of contemporary peers, and, when relevant, to human thought in general. They tend to ignore, beyond the needed limits, the intimate relationships of their subject with his family, his personal, rather than his scientific, friends, and his day to day environment in general. This is particularly so when the biography is written shortly after the death of its subject and by a close relative.

The primary biography of Charles Darwin, his son Francis Darwin's three volume Life and Letters (1887), is of this genre except for two things; firstly, it contains the earliest transcription of his autobiography and secondly, Francis' recollections of his father. The autobiography was written for his family and is highly selective, but was also much edited to avoid hurting his widow or to give offence to his scientific contemporaries, especially Richard Owen. Its full text did not appear in English until Nora Barlow's edition of 1958, although it had appeared in Russian the previous year. The recollections contain much detail that is not available, although they largely refer to Darwin's later years. The work contains only a brief pedigree of the Darwin line, even Charles' own children being omitted, but this is rectified by Burke (1888) which goes back to the sixteenth century and forward to the living relations in many branches.

Biographies before this primary one, such as the *Nature* obituaries in book form (Huxley et al., 1882), or Miall's lecture (1883) contain little that was not available from standard works of reference or from Darwin's own publications. Woodall (1884), however, has recollections of his childhood in Shrewsbury and of his father, while Bettany (1887) is useful for its bibliographical material compiled by J. P. Anderson. Four more family volumes are important sources. Francis, in collaboration with Professor Albert Seward, put together two volumes of *More Letters* which are largely scientific but contain some family matter, and Henrietta Litchfield, Darwin's daughter, had printed for family and friends two volumes of *Emma Darwin* (1904), recollections of her mother and of the Wedgwood side of the family. The published edition of the same work (1915) omits, unfortunately, those parts which she felt were not of interest to the public.

Both Darwin's grandfathers and his paternal grandmother died before he was born, as did his three paternal uncles and only aunt, without leaving him cousins,



Skeleton Pedigree of Charles Robert Darwin in the male line (from H.Farnham Burke, 1888)

but there were numerous half-relatives from the second marriage of his paternal grandfather Erasmus, as well as on the Wedgwood side. There is considerable biographical material on Erasmus starting with Anna Seward's *Memoir* (1804). The Swan of Lichfield wrote only of his time in that city and Darwin himself wrote a long introduction to the English translation of Krause's essay on the scientific work (1879) "to contradict flatly some calumnies by Miss Seward". More recently, King-Hele has produced two extensive studies (1963, 1977) and a volume of collected letters (1981). The Wedgwood side of the family is perhaps better served than that of the Darwin, although much of the literature is concerned with pots rather than with people. Eliza Meteyard's *A Group of Englishmen* (1871) gives a

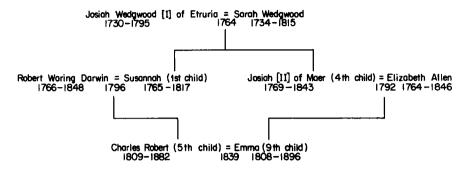
lively picture, especially of Emma's father's generation, although it caused offence at the time to both Wedgwoods and Darwins. B. Wedgwood & H. Wedgwood (1980) is an excellent book which succeeds in covering the dry bones of Francis Darwin's writings with flesh and blood. It also contains a pedigree of this complex family, although it omits those children who died very young, so that, for example, the Darwins are shown as having nine instead of ten children.

Darwin's children in their adult lives and his grandchildren when young are brilliantly depicted in Gwen Raverat's *Period Piece* (1952), the only book in the vast number of Darwiniana which is of literary merit in its own right. Gwendolen Mary Darwin was born in 1885, so that she did not know her grandfather; his figure, godlike behind his beard to young eyes, hovered over Down House and the doings of his children. The house and its pattern of day to day life was almost unchanged so long as Emma lived, except that the visiting scientists were replaced by Wedgwood cousins, and it was shut in winter so that the children saw only the bright times.

More recent biographies pay little attention to the family life of the Darwins. De Beer (1963), which can be considered the standard modern text, says little and adds nothing new; it does not even contain a pedigree of any sort. There is, however, much information scattered amongst various more specialized books. Atkins' study of Down House (1976) contains abundant useful facts, particularly on alterations to the house to suit a growing family and increasing affluence, on itemized expenditure on food and drink, and on life in the village. The many published letters contain scraps, but Charles usually answered his scientific correspondents, whilst Emma dealt with the family ones. The expected publication of his collected letters should help here, because it is the personal ones which have been neglected. Colp's careful study of Darwin's illnesses (1977) is important because it places his health in relation to the day to day life of the family. My own Darwin Companion (1978) is useful for facts, but it contains little that has not been published elsewhere.

Emma Darwin bore Charles ten children, six boys and four girls, between December 1839 and December 1856. Three of them died young, Mary Eleanor in 1842 twenty four days after birth, Anne Elizabeth, Charles' favourite child, at the age of ten of a fever at Malvern, and Charles Waring, who was mentally subnormal and never learnt to walk or talk, of scarlet fever at about eighteen months. Six of the remaining seven married, only the portly and rather simple Elizabeth remaining single at home. Three had children, nine between them, two born in their grandfather's lifetime. There was then at least one child under school age in the home from 1839 to 1856 and the last year in which all the children were at home was 1860–61, when William, the first born, was twenty one and Horace, the youngest survivor, nine. When Darwin died, only Bessy was still at home, but Francis had returned there with his infant son Bernard after his first wife had died in childbed.

Charles and Emma had only two homes during their married life of forty three years. No. 12, Upper Gower Street, in the Bloomsbury area of central London, for the first three and a half years, and Down House, at Downe in Kent, for the remaining forty. Their daily and family life was so different in the two places that it will be convenient to treat them apart. It will also be convenient to refer here to their financial situation. On marriage, they had about £1300 a year income and almost no capital, the money coming from Charles' allowance from his father and



Pedigree to show Charles Robert Darwin's Relationship to his wife Emma Wedgwood (From Emma Darwin, 1915)

Emma's marriage settlement. Such an income was suitable for a comfortable but not extravagant life style. Later, after the death of his father in 1848, and then by shrewd investment, his capital and income increased greatly so that he was worth about a quarter of a million pounds at his death, apart from a trust for Emma which he had set up in 1853. Royalties from his books, in his lifetime, brought him in only about £10000.

Charles was married to Emma at St Peter's, Maer, Staffordshire, from her father's house Maer Hall, on 29 January 1839, and he brought her to their new home that evening by train. Charles had been living there since New Year's day and the house was working and warm. 12, Upper Gower Street was one of a short terrace of houses, built in 1789, which ran on the east side from the top of where Gower Street then ended as far as the buildings of the infant University College London. It consisted of basement, ground floor and three stories, each with three lights, and a long thin garden beyond leading into a mews. Charles had taken it on a lease and had bought the furniture. They used the first floor back as their living room, opening the front drawing-room only on formal occasions because they found it too noisy. Charles had his study, packed with Beagle material, on the top floor so that he could get away from household matters. The details of their establishment are, as always, vague, but they had at least a cook, a housemaid and a manservant. Emma would have preferred to have had women only and found considerable difficulty in getting suited, as she did also with cooks. The only man who seemed perfect was the third footman appointed, Joseph Parslow. He moved with them to Down House, became butler and an integral part of the family. He finally retired in 1875 but remained living in Downe village until his death in 1898.

They settled down to a quiet domestic life, a few dinner parties and the complex round of social calls, the theatre occasionally and, especially for Emma, concerts; they walked mostly in the nearby Regent's Park and tried various churches on Sundays, including the damp and gloomy chapel of King's College in the Strand. Charles was working hard. His Journal came out at last in the summer and was well received. He was writing up the geological results of the Beagle voyage and editing its Zoology. He was Secretary of the Geological Society and had to attend all its meetings as well as organizing them; as a newly elected Fellow of the Royal Society, he was also a regular there. He also used his club, the Athenaeum from

time to time, but not as frequently as he had done in his bachelor days. They visited their families at Shrewsbury and Maer each year. He went to the British Association at Birmingham in September 1839 and on a geological trip to North Wales in the summer of 1842.

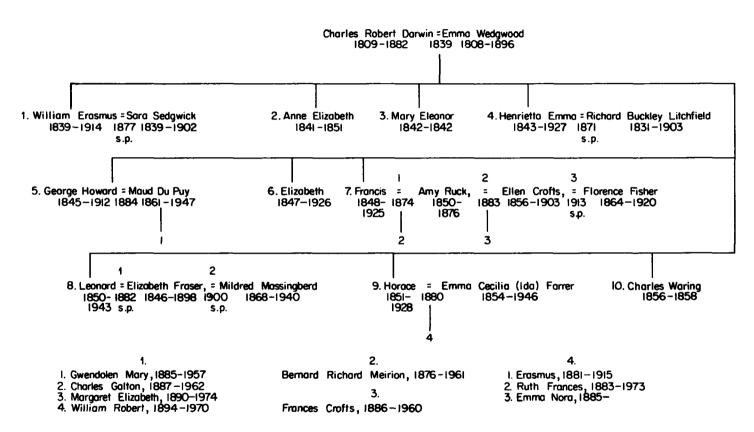
Their first child, William, was born just after Christmas. A nursery was made, but there is no mention of a nurse. Charles took a deep interest in the boy right from the start and made notes on changes in his behaviour. Years later (1877), he was to publish these when interest in child behaviour was to the fore. There is a daguerrotype of William with his father which was taken in 1842, although the photographer is unknown. It is the only picture of any member of the family taken as a child with his father, although there is one of Leonard taken with his mother. Their second child, Anne, was born in March 1841.

However, they were not altogether happy. Almost immediately after their marriage Charles started to suffer from bouts of general ill health, sometimes with vomiting. He also found that the social and scientific round interfered seriously with the flow of his work and thought. His illness he put down to the London atmosphere; indeed it was foul. Emma liked London, but in small doses. The concerts and the shops suited her for a bit, but she would have been happier in the country to which she was used. They thought of moving as early as the spring of 1840 and, after a tedious search, first saw Down House in July 1842. They moved in September with William and Anne. The rest of the children were born there, and there Charles, and later Emma, died.

The village of Downe lies on the chalk of the North Downs, its centre clustered around the church of St Mary with the George and Dragon Inn opposite. Its population, at the census of 1841, was 444; at that of 1881 it had risen to 555. There were a few gentry houses, including two later occupied by ageing Wedgwood spinsters, an aunt and Emma's hunchbacked eldest sister. It was an area of mixed farming including strawberries, and the men worked mostly on the farms. The great local landowner was Sir John Lubbock, banker and astronomer, whose High Elms estate of 3000 acres marched with Darwin's eighteen. His eldest son, also John, who was nine when the Darwins came, became a strong personal friend. He was for many years a Member of Parliament, the 'Saint Lubbock' of bank holidays, as well as almost the founder of modern archaeology and an entomologist.

The Darwins took an active part in village affairs. Charles was for many years Treasurer of the Friendly Club, and after he became a Justice of the Peace in 1857, a deeply respected figure. He is only recorded as sitting on the Bench at Maidstone once, but, as he put it, gave "orders daily to allow pigs to cross roads" and did other similar magisterial duties. Emma doubtless did some sick visiting, although with her large family and Charles to care for she cannot have had much time. She certainly sent the elder children to village dances and later ran a Sunday library for the local children.

Two often repeated fallacies must be disposed of before considering their family life—that Downe was remote from London and that the Darwins lived a secluded, almost recluse, life. The village of Downe is thirteen miles from London Bridge as the crow flies, perhaps twenty by road and, until the railway came to Orpington, it must have been difficult to go there and back in a day. Litchfield, however, records that as late as 1882, just after Charles' death, Lady Derby called on Emma in her own carriage from London and went back the same afternoon. After the railway



Pedigree of Charles Robert Darwin's children and grandchildren

came, it was easy to reach Down House for Sunday lunch and to return the same day. It is true that the Luxted Road, on which the house lay, was no more than a rutted cart track, but then so too were all small country lanes. That the Darwins lived secluded is even less true. They entered into the life of the village, had guests for Sunday lunch or long weekends, visited London, most often staying with Darwin's brother Erasmus or other relatives, and took family holidays. When Charles was a member of the Council of the Royal Society in 1855–56, his second stint, he attended meetings on sixteen occasions. He was away from home for about two thousand days between 1842 and 1881.

What was true was that he kept to a rigid pattern of work and leisure when he was at home and tried hard not to be diverted from it, even when guests were staying in the house. Only by this means could he get through the enormous body of research and writing which he completed in the face of frequent illness which was often accompanied by distressing symptoms. Even so, if one of the children was slightly unwell, the study sofa was the place to find him tucked up.

Soon after they had settled in, improvements were made to the house and grounds. The Luxted Road was lowered and a mound thrown up to protect the house from the north wind. Bays were added to the drawing-room and the two floors above. The kitchens and butler's pantry were re-designed, with a schoolroom and two new bedrooms above. In 1858, the present drawing-room was built, which was later improved by adding the verandah. Finally, a billiard room was added, a room converted in 1881 to a new study, and the front door was moved to its present position. The most important changes in the grounds were the planting of the sandwalk in 1846, a walk which became an important part of Darwin's daily routine. The heated greenhouse was added in 1862 and finally a strip of land was bought beyond the orchard on which a tennis court was built. The house and grounds are today much as they were in 1882, except that only the new drawingroom and the old study are furnished as Darwin used them. The greenhouses have been replaced and the outhouses have changed. The trees, being a hundred years older, are larger or gone. The mulberry outside the nursery windows is still there, but the 'elephant tree' beech on the approach to the sandwalk is dead, its stump bearing a plaque.

The establishment at Down House was considerably larger than it had been in London, but the details available are equally vague. Parslow, the butler, was head until 1875, when he was succeeded by Jackson, a much less dignified character who is chiefly remembered for making a scale model of the house in cork, a white elephant which is now back where it was made. There was always one liveried footman and, for a short time at least, a page, a son of the local carpenter. Mrs Evans was the best known cook; the 'Mrs' was titular although she married later. The Darwins treated their servants with consideration, and kept them, but they appear as an endless series of Johns and Marys or Maryanns, or indeed just as 'wages'. The outdoor staff consisted of a gardener, of whom Lettington is best recorded, and a coachman. These sometimes doubled for each other and there may have been some boys as well.

Nurses and governesses stand apart from the body of the downstairs employees. The best remembered nurse was Brodie who had come from the Thackerays and retired to her native Scotland when Anne died in 1851. Governesses educated the girls and helped with the boys below school age; no less than seven of them are mentioned and none seem to have stayed long.

Emma's taste in furnishing was sensible and the house, except for Charles' study, had a bare, almost spartan, appearance, unlike the clutter of a typical Victorian home. They had brought a few pieces from London including Charles' study arm chair with its writing board and Emma's lovely Broadwood grand pianoforte which had been a wedding present from her father. For the rest, as Atkins writes, it was "functional, strong, comfortable and undistinguished". Of pictures and objects of decoration, the two wedding portraits in water colour by George Richmond were there; also some silhouettes and some Arundel prints. Originally there were some decorative Wedgwood pieces, but these seem to have been disposed of later. Neither of the Darwins were collectors of bits of art or virtue.

Domestic animals and pets formed an important part of life at Down House, as indeed they did in any country house. The boys learned to ride almost as soon as they could walk; their ponies and horses were the only means of getting about the surrounding country further than their legs could carry them. Charles, who had ridden and hunted in his youth and covered long distances in South America, ceased to do so until recommended on health grounds by Dr Bence Jones. In April 1869, his quiet cob Tommy stumbled and rolled on him, bruising him badly. He never rode again. There was always a carriage horse, usually a very sedate one, for Emma and the girls and for ferrying to and from the station. The boys were allowed great freedom to go long distances alone. The twelve acres of paddock provided some hay as well as pasture and, at times at least, cows were kept on it for milk, but there was not enough ground on which to make even a small farm.

Dogs were strongly attracted to Charles and there was always at least one around the house. Bobby was the halfbred collie whose behaviour is illustrated in Expression of the Emotions (1872). Polly, the best remembered of them, was a fox terrier bitch which had originally belonged to Henrietta but attached herself to Charles when Henrietta married in 1871. Her basket was in the study and they went everywhere together. Emma and Henrietta were ailurophiles and there were always some cats around. Charles preferred the charms of kittens. When he was working on Variation under Domestication, Charles bred various races of fancy pigeons. He grew so fond of them that he could not bear to turn them into the skeletons that he needed. Poultry were kept to supply eggs and table birds.

Neither Francis Darwin nor anyone else tells us what the family liked to eat or what appeared at their table. He assumed that everyone knew what would have been there or that it was of no interest to his readers. Atkins (1976), however, gives some fascinating figures from Emma's accounts which show what and how much was bought to turn into table dishes. Charles himself, although he had greatly enjoyed a good board in his youth, was abstemious especially in his later years, but there were perhaps eight to feed below stairs, and, so long as the children were at home, ten including the governess above, not counting visitors. The total cost of food was about £500 per annum and meat was by far the biggest item at over £300 in the most expensive year; fish, poultry and game added another £70.

Drinks were paid for in Charles' account and were the responsibility of the butler. There was considerable consumption of draught beer, probably small stuff below stairs in place of water which was not always to be trusted. The wine bill seems small, but various sorts must have been available when guests were present. Francis says that his father liked a glass and that it refreshed him; he had drunk more freely in his youth and admitted to Hooker that being intoxicated had given him pleasure. Brandy is the only spirit mentioned, mostly for the men at dinner

after the ladies had retired; Charles often went with them. A little was used for medicinal purposes. Charles had smoked cigarrillos when riding with gauchos in Argentina, and later in life enjoyed a few cigarettes when resting. The sons are not recorded as smoking cigarettes, but several enjoyed pipes in later life. Charles was very fond of snuff which he had started when a medical student at Edinburgh. He kept a large jar in his study, but later he moved it into the hall to cut down his consumption because he would have to get up every time he needed a pinch. Finally, about 1851, he gave it up altogether.

Little is said about what organized games were played when the children were small. There were galloping games for which Emma played the piano, and some sort of word making and word taking was continued for many years. Happy families was also a possibility; the young Hookers played it with flower or insect families instead of Mr Bunn, etc. Charles had enjoyed billiards at the Moor Park hydropathic establishment and in 1859 a table was put up in the old dining room. It was later moved to a new room next to the drawing-room and Charles played with the older boys. Lawn-tennis had become a sudden rage in 1875 and six years later a piece of land was bought for a court below the orchard.

Emma's love in life was music; she played the piano well and almost every evening Charles listened to her. The only musical child was Francis who accompanied her on his bassoon. Richard Litchfield, something of a figure of fun to his brothers-in-law in other ways as well, later joined them on his concertina. Visiting female relations sometimes sang. Their other regular evening relaxation was backgammon. They played two games every evening and in 1876 Charles wrote to Asa Gray "she poor creature has won only 2490 games, whilst I have won, hurrah, hurrah, 2795 games!". Cards seem never to be mentioned, although Charles had been an avid player of Van John (Vingt-et-un) when at Cambridge.

Emma must have read regularly to the children when they were small, but we are not told what except for *The Bird Talisman*, an oriental tale by her brother Henry which was first published in parts in a serial in 1852. Emma was so fond of it that she had it privately printed in 1887 so that she could read it to her grandchildren. It is perhaps interesting that the only published edition, which appeared in 1939, was illustrated by Gwen Raverat, one of those grandchildren. Reading aloud was a part of daily leisure for the adults. Emma read to Charles every day while he rested after lunch and again in the evenings after music. Most books were sent by Mudie's, but there were copies of some of the most popular authors such as Jane Austen and Walter Scott as well as some poetry in the house. Two or even three books were on the go at the same time. There was always a novel as well as something more serious, often travel or history. Charles liked his novels to be light with a happy ending and if the heroine was a pretty girl so much the better. Lytton and Trollope were too serious and George Eliot tended to have unhappy endings.

Darwin is usually described as a naturalist and it might be expected that the study of nature would have been important in the children's upbring. However, he was not a naturalist in the usually accepted sense of one who knows in some detail about the kinds of animals and plants around him and something of their habits and habitats. He would have remembered his beetles from his own collecting days at Cambridge and he certainly knew what sort, in general terms, any animal was, but he despised mere collecting and describing, chiding the Zoological and Entomological Societies for the predelictions of their members. The children,

living as they did in deep countryside, must have absorbed a good deal, but two published examples perhaps show that they were taught more than Francis tells us. In 1859 a short note appeared in The Entomologist's Weekly Intelligencer on beetles at Downe, signed by Francis, Leonard and Horace. Three species are named, two ground beetles and a longhorn, all local and two peculiar to chalk. As the children were 10, 8 and 7 years old at the time, it is clear that Charles was behind it, but they must have played some part. In 1854 and the following years, he made observations, at that time new, on the flight routes of male humble bees. They fly in wide circles, stopping here and there at what he called 'buzzing places', all stopping at the same ones. Five children helped, only Elizabeth and Horace, who was too young at the beginning, being absent. Each one was placed at a buzzing place and sang out 'here is a bee' every time that they saw one. He never published the results, but sent a précis, with a sketch map, to Hermann Müller of Lippstadt who was an expert on the fertilization of flowers. This précis, translated into German, appeared in 1885, and, with a transcription of the original field notes, in English in 1968.

Much has been written about Darwin's views on religions, but the conventions so far as the family was concerned were different from his views. He had been brought up for his first few years by a Unitarian mother and attended their chapel in Shrewsbury although he was baptized at the Parish Church of St Chad's; Emma was also brought up in a Unitarian household and was a devout church-goer throughout her life. She brought her children up to a simple Unitarian creed, although they attended Anglican services and had to reconcile the differences. John Brodie Innes became Vicar of Downe in 1846, shortly after the Darwins had arrived, and he and Charles became firm friends although "we have never thoroughly agreed on any subject but once". Their letters have been published (Stecher, 1961) and it is clear that Charles recognized the important part that the local priest played in a rural community. However, he retired to his ancestral Milton Brodie in Scotland in 1862 and the church was served by a series of unsatisfactory curates. The last of these, George ffinden, who later became Vicar, was greatly disliked, indeed Olive Willis, the founder headmistress of Downe House School, described him as "that wicked man". In the early days, Emma took the family to St Mary's and perhaps Charles sometimes went with them. After the coming of the curates she took them elsewhere. Up until his last years Charles continued to attend necessary family occasions. He gave away his daughter Henrietta in 1871; he attended the walking funeral of his sister in law Elizabeth in 1880 and lastly that of his brother Erasmus in August 1881.

The children started their education at their mother's knee. Before she was married, Emma had helped to run a Sunday School at Maer and had written some simple stories for her pupils. These she had printed in large fount and used the same little book for her own children. After this beginning, William, the first born, had a different education from the rest. Charles had not liked his years as a boarder at Shrewsbury School and had felt his time wasted by the rigid classical curriculum of Samuel Butler, the headmaster. Nevertheless he sent William to Rugby. The Rev. E. M. Goulburn, a staunch conservative, was then headmaster, but the radical reforms of Thomas Arnold of twenty years earlier persisted and William must have benefitted. The other four boys started under the tutorship of the Rev. George Reed, Rector of Hayes, Kent, for more than thirty years. He was something of a naturalist and later became a family friend. From there they all went to Clapham

Grammar School, a small place which had been started by the Rev. Charles Pritchard, a mathematician and astronomer who had become F.R.S. at the age of thirty-two. George and Francis were educated by him, but in 1870 he was appointed to the Savilian Chair at Oxford and the other two were taught by his successor, Alfred Wrigley. Four went to Cambridge, but Leonard went to Woolwich where he was commissioned into the Royal Engineers. The two girls were educated by the governesses and there was no question of their going on to any higher education, indeed Emma, to the end of her life, disapproved of such ideas.

Health was an obsession to Victorian parents, quite rightly so, and the Darwins were perhaps even more obsessed than most. Charles worried that none of his sons would ever be strong enough to earn his own living and that he could not leave them enough to make them independant. Emma, who spent so much of her time helping Charles through his bad patches, has been accused of molly-coddling the children in their slightest upsets and leading them into hypochondria. She had lost three and was understandably cautious. The care of good mothers and nurses probably saved the lives of more Victorian children than all the nostrums and regimens of physicians. The facts are entered in the family bible and Colp (1977), who surveys all the available evidence, concludes that, apart from the recognizable infectious diseases of childhood, there is not enough evidence available to say what was wrong with them. Gwen Raverat, who was of the family and knew all seven well, says that, apart from her father George and uncle Horace, there was nothing basically wrong with any of them. Horace had probably suffered for a long time from a grumbling appendix, typhlitis as it was then called. He had his appendix out in 1893, an operation new at the time and risky. The hypochondria showed least in William and most strongly in Henrietta. In 1856, when unwell, she had breakfast in bed and "she never got up to breakfast again in all her life", from the age of thirteen to seventy-seven. Her ridiculous valetudinarian habits and their effect on her patient husband are splendidly described in Period Piece (Raverat, 1952). Once they had got through their childhood, all seven lived on. George was the first to die, of a cancer, at the age of sixty-seven. Leonard lived into his ninety fourth year until 1943.

Parents had a last duty to their grown children, especially the girls, to see that they were placed in company from which to choose suitable spouses. It is not, at first sight, easy to see where the six who did marry found their mates. Henrietta met Richard Litchfield at a family party in London. He was short, with a large beard, did something in the Ecclesiastical Commission and was one of the founders of the Working Men's College; his brothers-in-law were inclined to laugh at him. William married Sara Sedgwick, an American whose sister had married Charles Norton, Professor of Italian at Harvard. The Nortons had stayed for some time at Keston Rectory near Downe and they and other relatives had remained on friendly terms with the Darwins. George also married an American, but being a Fellow of Trinity College, Cambridge, he was not able to do so until after the recommendations of the Cumberland Commission came into effect 1878. Maud du Puy was a niece of Caroline Jebb, the wife of Richard Jebb, Professor of Greek at Glasgow and later at Cambridge. Francis married three times and was three times a widower. His first wife, Amy Ruck, died at the birth of their son Bernard. Her three brothers had been at Clapham Grammar School with the Darwin boys and there was some question at first which one of them she would marry. Her mother

Mary was still visiting Emma once a year at Cambridge in the 1890s. Leonard married, as his first wife, the sister of a brother officer, General Sir Thomas Fraser. Horace seems to have been the only one to whom his prospective in-laws made objection. Emma Cecilia Farrer, always known as Ida, was the only daughter of Sir Thomas Farrer by his first wife. He, or perhaps more his second wife who was a Wedgwood, thought that Horace's continuing ill health and the uncertainty of his prospects might make him unsuitable. However, the marriage took place.

In their early days, before they had attained wealth or eminence, the sons could not have earned enough to maintain the standards to which they were accustomed. Indeed the emoluments of their occupations, especially in the cases of George and Francis, were never high. In his last years Charles shared out some of his surplus income amongst his sons to help them. In 1881, after the death of Erasmus, William wrote to his father that if the estate was divided, Emma already being provided for, in a ratio of two parts for the girls and three for the boys, the girls would have nearly $£37\,000$ each and the boys £56 000.

Darwin's earlier fears that his sons might not be able to make their own way in life were entirely unfounded. Three knights and three Fellows of the Royal Society, a Professor and a Reader, a partner in a successful bank, a soldier of field rank and a Member of Parliament, a highly successful scientific engineer and a Mayor of Cambridge should be enough for any father's pride.

REFERENCES

ATKINS, H., 1976. Down the Home of the Darwins; the Story of a House and the People who Lived There. (Revised edition.) London: Phillimore for The Royal College of Surgeons of England.

BETTANY, G. T., 1887. Life of Charles Darwin. London: Walter Scott.

BURKE, H. F. (compiler), 1888. Pedigree of the Family of Darwin. [London], privately printed.

COLP, R. Jr., 1977. To be an Invalid; the Illness of Charles Darwin. Chicago: University of Chicago Press.

DARWIN, C. R. (Ed.), 1838-1843. The Zoology of the Voyage of H.M.S. Beagle etc. 5 parts in 3 vols. London: Smith Elder.

DARWIN, C. R., 1839. Journal of Researches into the Geology and Natural History of the Various Countries Visited by H.M.S. Beagle etc. London: Henry Colburn.

DARWIN, C. R., 1868. The Variation of Animals and Plants under Domestication, 2 vols. London: John Murray.

DARWIN, C. R., 1872. The Expression of the Emotions in Man and Animals. London: John Murray.

DARWIN, C. R., 1877. A biographical sketch of an infant. Mind, 2: 285-294.

DARWIN, C. R., 1885. Über die Wege der Hummel-Männchen, in Gesammelte kleinere Schriften von Charles Darwin, 1885-86, 2: 84-88.

DARWIN, C. R., 1957. Recollections of my Mind and Character (Autobiography). [Russian.] Translated and edited by S. L. Sobol'. Moscow: Academy of Sciences, U.S.S.R.

DARWIN, C. R., 1958. The Autobiography of Charles Darwin 1809-1882; with the Original Omissions Restored. Edited by Nora Barlow. London: Collins

DARWIN, C. R., 1968. Charles Darwin on the routes of male humble bees. Bulletin of the British Museum (Natural History), Historical Series, 3: 177-189. Edited by R. B. Freeman.

DARWIN, F. (Ed.), 1887. The Life and Letters of Charles Darwin, Including an Autobiographical Chapter, 3 vols. London: John Murray.

DARWIN, F., DARWIN, L. & DARWIN, H., 1859. [Records of beetles at Downe.] Entomologist's Weekly Intelligencer, 6: p. 99

DARWIN, F. & SEWARD, A. C. (Eds), 1903. More Letters of Charles Darwin; a Record of his Work in a Series of Hitherto Unpublished Letters, 2 vols. London: John Murray.

DE BEER, G. R., 1963. Charles Darwin; Evolution by Natural Selection. London: Thomas Nelson.

FREEMAN, R. B., 1978. Charles Darwin, a Companion. Folkestone: Dawsons.

HUXLEY, T. H. et al., 1882. Charles Darwin. Memorial Notices Reprinted from "Nature". Nature Series. London: Macmillan.

KING-HELE, D. C., 1963. Erasmus Darwin. London: Macmillan.

KING-HELE, D. C., 1977. Doctor of Revolution; the Life and Genius of Erasmus Darwin. London: Faber & Faber.

KING-HELE, D. C., 1981. The Letters of Erasmus Darwin. Cambridge: Cambridge University Press.

KRAUSE, E., 1879. Erasmus Darwin. Translated from the German by W. S. Dallas, with a Preliminary Notice by Charles Darwin. London: John Murray.

LITCHFIELD, H. E. (Ed.), 1904. Emma Darwin, Wife of Charles Darwin. A Century of Family Letters, 2 vols. Cambridge: privately printed at The University Press.

LITCHFIELD, H. E. (Ed.), 1915. Emma Darwin. A Century of Family Letters, 1792-1896. London: John Murray. METEYARD, E., 1871. A Group of Englishmen. London: Longman.

MIALL, L. C., 1883. The Life and Work of Charles Darwin; a Lecture. Leeds: Richard Jackson.

RAVERAT, G., 1952. Period Piece; a Cambridge Childhood. London: Faber & Faber.

SEWARD, A., 1804. Memoir of the Life of Dr. Darwin, Chiefly During his Residence at Lichfield, with Anecdotes of his Friends, and Criticisms on his Writings. London: I. Johnson.

STECHER, R. M. (Ed.), 1961. The Darwin-Innes letters; the correspondence of an evolutionist with his vicar. Annals of Science, 17: 201-258.

WEDGWOOD, B., & WEDGWOOD, H., 1980. The Wedgwood Circle; 1730-1897; four Generations of a Family and their Friends. London: Studio Vista.

WEDGWOOD, H. A., 1852. The bird talisman, an eastern tale; for The Tutor's younger pupils. The Family Tutor, 3: 49-52; 89-92; 108-111; 143-146; 168-171; 208-212; 234-237.

WEDGWOOD, H., A., 1887. The Bird Talisman, an Eastern Tale. With an introduction by Emma Darwin. Cambridge; privately printed at The University Press.

WEDGWOOD, H. A., 1939. The Bird Talisman, an Eastern Tale. Illustrated by Gwen Raverat. London: Faber & Faber.

WOODALL, E., 1884. Charles Darwin. Transactions of the Shropshire Archaeological and Natural History Society, 8: 1 64. The same as a book, London: Trübner (Oswestry printed).