Section of the History of Medicine

President Sir Terence Cawthorne FRCS

Meeting October 2 1968

Paper

The Reverend Joseph Townsend MA MGS (1739-1816) Physician and Geologist– 'Colossus of Roads' [*Abridged*]

by A D Morris MD
(*Eastbourne*)

The name Townsend was once well known to the medical profession in this country through the eponymous 'Townsend's Mixture', for this was one of the earliest prescriptions to combine the two specific remedies for syphilis, namely mercury and potassium iodide. There is a reference to Joseph Townsend, and Townsend's Mixture, in all the larger medical dictionaries.

The Reverend Joseph Townsend (Fig 1) was in many ways a remarkable man. In the first place he was remarkable for his height. Recently I was privileged to browse among the unpublished diaries of Dr Davies Gilbert MP (1767–1839), a former President of the Royal Society, who discovered the genius of Sir Humphry Davy. Under Saturday, November 9, 1816, I came across this entry in Davies Gilbert's handwriting: 'The Rev. Joseph Townsend died this day aged 78 . . . . He wrote Travels in Spain and was remarkable in his person from his exceptional height.' Richard Warner, the Rector of Great Chalfield, Wiltshire, in his 'Literary Recollections' (1830) described his height as 'unusual', and stated, rather vaguely, that he was 'between six and seven feet' tall. I have not been able to determine his exact measurement, but it cannot have been less than 6 feet 6 inches (1·98 m), sufficient to make him conspicuous wherever he went. For many years he had been one of the Commissioners of the turnpike roads responsible for the upkeep of the King's highways in the county of Wiltshire, a civic duty which required frequent visits of inspection. His gigantic stature made him a familiar figure on the roads and earned for him the appellation 'Colossus of Roads'.

Fig 1 *The Reverend Joseph Townsend (1739–1816), from 'New Illustration of the Sexual System of Linnæus', by R J Thornton (London, 1807). (By courtesy of the Wellcome Trustees)*

Joseph Townsend was born on April 4, 1739, at Austin Friars in the City of London. He was the fourth son of Chauncy Townsend, linen merchant and mining speculator, who had been elected MP for the borough of Westbury, Wiltshire, a seat under the patronage of Lord Shelburne, later Prime Minister. After representing Westbury for twenty years he was elected MP for

Wigton Burgs, Scotland, and thus achieved the distinction of being the first Englishman to sit for a Scottish constituency, but despite his twenty years in Parliament he never made a maiden speech. As a mining adventurer he made a fortune from coal-pits in South Wales and tin-mines in Cornwall.

One of Joseph's brothers, James Townsend, was the 'celebrated Alderman Townsend', who was MP first for West Looe, Cornwall, and later for Calne, Wiltshire. After election as a member of the City of London corporation he became, successively, Alderman, Sheriff, and finally Lord Mayor of London in 1762. His association with City administration, however, coincided with a turbulent period in London's history, when the City fathers came in conflict with George III and his ministers over the case of the notorious John Wilkes. The slightest infringement of civil or religious liberty found its defender in Alderman Townsend, and it is significant that his last speech in the House of Commons was in defence of Warren Hastings. He died at his residence, Bruce Castle, Tottenham, in the year 1787.

It is not known where Joseph Townsend received his early education previous to entering Clare College, Cambridge, where he graduated BA in 1762, and proceeded MA in 1765. In the same year that he graduated he took Holy Orders and moved to Edinburgh where he matriculated at Edinburgh University and commenced a study of medicine under teachers famed for systematic lectures and clinical teaching. In the 1762–63 session he attended lectures by Professor William Cullen (anatomy), Professor Robert Whytt (physiology) and Professor John Hope (botany). He discontinued his studies at the end of his second session when his father procured for him the lucrative living of Pewsey, Wiltshire, a village of one thousand inhabitants. When he discovered that the health of the poor of Pewsey was at the mercy of the village blacksmith, who was also the village apothecary, he started a free medical service for his poorest parishioners, which he ran for nearly fifty years.

At Edinburgh he became friendly with a fellow medical student, Thomas Haweis, who later became a doctor of medicine, and took Holy Orders. Haweis married Townsend's sister and eventually became Rector of Aldwinkle, Northamptonshire. During their student days both imbibed Calvinistic doctrines from some followers of George Whitefield, and at Bath Townsend came under the influence of that dominating personality, Selina, Countess of Huntingdon, a devoted follower of Whitefield. She persuaded him to preach for the Calvinistic Methodists, in their meeting places if they had any, and if not in the open air, and she appointed him her domestic chaplain. On October 16, 1765, the Countess opened her new chapel at the Vineyard, Bath, and on this occasion Townsend shared the pulpit with George Whitefield, whose evangelical methods and rousing eloquence he copied so naturally that his success as a pulpit orator was phenomenal, and he attracted large congregations wherever he preached. He was only 26 years of age yet within a few years he was adjudged, after Wesley and Whitefield, the most popular pulpit orator in the West Country. On the rostrum he appeared as 'a gaunt, upright, gigantic figure'; he had a broad high forehead, and long arms with which he gesticulated wildly when he was seized with a religious fervour. He was gifted with a rich, deep, powerful voice which could reach the multitude in the open air. The Countess regarded him as a heaven-sent religious revivalist and sent him on missions to all corners of the kingdom, where he soon discovered that the paths of the itinerant evangelist were indeed rough, and his gigantic stature provided an easy target for a hostile mob who pelted him with stones, dung and rotten eggs, but he was a man of immense courage and he withstood the ordeal without flinching. After four years of aggressive evangelism his religious zeal waned, his wonted spiritual fire was extinguished, and he withdrew from the Methodist movement.

A work of fiction, 'The Spiritual Quixote' (1772), by Richard Graves, was a satire on the religious fanaticism of the Methodists, ridiculed open-air preaching and denounced the attempted conversion of the lowest orders. The principal character, an itinerant preacher, was easily identified as the Reverend Joseph Townsend by all who had listened to him. Townsend's ministerial companion on his revival tours was a very short man, and as they set out on the highways they were said to resemble Don Quixote and Sancho Panza setting forth on their adventures.

An appointment as domestic chaplain to the Duke of Atholl, in 1769, was followed by a grand tour through France, Holland, and Flanders, in company with his patron, and thus he acquired a zest for continental travel, which ultimately led to a prolonged expedition to Spain. In 1791 he published an account of his travels in Spain under the title 'A Journey through Spain in the years 1786 and 1787'. The work was called 'a curious medley of Spanish topography, mineralogy, soils, agriculture, finance and manners', representing the author's encyclopædic interests, and it is notable for containing the first description in English

literature of the disease pellagra, known to the Spaniards as *mal de la rosa:*

'The Mal de la Rosa,' Townsend stated, 'has been considered as a species of the leprosy, but to me it appears to have no affinity with that disease. It attacks the back of the hands, the insteps and the neck where it descends to the sternum . . . but the rest of the body is free. At first it appears red, accompanied with pain and heat, but ends in scurf. In the progress of this disease, vertigo and delirium, succeed with foul tongue, lassitude, chilliness, tears, and . . . a peculiar propensity to drown themselves. It goes away and returns in the spring. The disease . . . if neglected, terminates in scrophula, marasma, melancholy and madness.'

In 1781 he published the first of his medical works, 'The Physician's Vade Mecum', 'being a Compendium of Nosology and Therapeutics'. By this time Townsend had been a practising physician for sixteen years. The book was an immediate success and it was in such demand that it reached ten editions, including an American edition (1805). The first section of the book consists of a list of diseases as classified by Dr William Cullen, whilst the Compendium of Therapeutics comprises a list of prescriptions with indications for their use, and the book ends with a comprehensive list of drugs and their doses arranged in alphabetical order. The author, in an explanatory index, gives the English equivalent of all the Latin terms used throughout this book. In the 1805 American edition a new method of treatment, by the inhalation of various gases, was introduced. The originator of inhalation therapy was Dr Thomas Beddoes, founder of the Pneumatic Institution at Clifton, Bristol, and his foremost disciple was Dr Robert John Thornton of Bloomsbury.

The second of Townsend's medical publications is entitled 'Elements of Therapeutics', 'being Cautions and Directions in the treatment of diseases', published in 1795. The third and last edition, an octavo volume of some 800 pages, appeared in 1801. In his preface the author asserts that his book would 'assist the medical student, not merely in the practice, but in the science of medicine', and he hoped that it would be useful for the country clergy often called on to give medical aid to poor parishioners unable to afford the services of an apothecary. An interesting feature is a description of a new operation for the relief of a strangulated femoral hernia, which had been demonstrated to Townsend by the surgeon who devised it, his friend Don Antonio de Gimbernat, surgeon to the King of Spain, whose name is familiar to doctors through the eponymous 'Gimbernat's ligament', whose sharp free edge is the cause of the strangulation. This was the first description of Gimbernat's operation in the English language.

A third medical publication, written by Townsend, has been discovered recently, and the only two copies extant are in the possession of Dr Richard Hunter and Dr Ida Macalpine. A copy of the second edition, dated 1824, is entitled 'On the Agency of Vital Air in the Cure of Various Diseases, with cases, by the Reverend Joseph Townsend, Rector of Pewsey, Wilts, published by the Pneumatic Institution, 204 Regent Street'. The ninth edition (1827) has a list on its title page of some twenty-six diseases which the author claims were cured by the inhalation of oxygen or other gases, and it is entitled 'Townsend on Vital Air, being numerous cases showing the effects of Vital Air and other factitious airs: as judiciously practiced by Dr. Thornton. By the Reverend Joseph Townsend, M.D.' Both these editions were published after Townsend's death, and were probably edited by Thornton himself.

In the year 1780, Townsend, a widower, married Lydia, Lady Clerke, widow of Admiral Sir John Clerke, of Pewsey, a lady who for many years had assisted him in the conduct of his practice and voluntarily performed the duties of a parish nurse.

Townsend fell a victim to typhus fever during an epidemic which swept through the parish of Pewsey, and in his book 'Vital Air' under the heading 'Cases of Putrid Fever', he describes 'my own case', as follows:

'A fever occurred in the village of Pewsey, where there was occasion for my attention to the sick both day and night, there being upwards of fifty persons afflicted by that dire calamity. From fatigue and anxiety of mind, I contracted the same disorder which carried off so many of my parishioners, and I was attended by two eminent physicians from Bath who attended to me daily. My disease increasing in violence . . . we determined to send for Dr Thornton . . . and accordingly that able practitioner came to us on the 18th day of my disease.'

At this stage Townsend suffered from constant hiccups, spasmodic twitchings, and commenced picking at the bed-clothes. Dr Thornton immediately after his arrival administered vital air, with the result that by the 28th day of the disease he was free from fever and made a good recovery.

Case No. 37 is of unusual interest for it concerns a patient named Augustus Ernest, Esq, who was actually HRH the Duke of Cumberland, fifth son of George III, later King of Hanover. In

August 1799 he had a severe attack of asthma and as his condition became worse Dr Thornton was called in, and after administering vital air for a few days the patient was much relieved and made a good recovery.

Townsend was an ardent social reformer, a persistent critic of the much abused poor laws, and a serious student of the problems of poverty and pauperism. For many years he was engaged in researches into what he termed 'the principle of population'. Through pastoral visitation, and domiciliary medical visits, he obtained an intimate personal knowledge of the hardships suffered by the poor, especially during the constantly recurring periods of agricultural depression. His observations on poverty and pauperism were made known in a book entitled 'A Dissertation on the Poor Laws' (1786), a work which the Webbs, in their 'History of the English Poor Laws' (1929), have described as an 'able and eloquent dissertation from which we shall repeatedly quote'. In 1788 he published another commentary on poor-law administration, 'Observations on Various Plans for the Relief of the Poor', in which he declared that the Poor Laws, 'so beautiful in theory, promote the evils they were meant to relieve'. He advocated the complete abolition of out-relief for the able-bodied who should only be relieved by admission to a workhouse. Aware that sickness was one of the chief causes of pauperism he had provided free medical treatment for the poor of his own parish. Payment of out-relief at this period was extremely lax; farmers could not afford to pay their labourers a living wage and the difference was made up by a subsidy from the Poor Rates. In some instances it was more profitable to be idle than at work. The political economists considered that there was no justification for granting relief in such a manner as to perpetuate pauperism. Townsend sought for more strictness in allocating relief and fought for a progressive reduction in the cost of relief.

In 'A Journey through Spain' he described his researches carried out in Spain on the problems of population. He was appalled at the sight of swarms of able-bodied beggars, all kept alive by the regular and indiscriminate distribution of food, and money, by convents and monasteries, which not only perpetuated a miserable race, but 'multiplied the inhabitants beyond the means of sustenance'. Townsend declared that his researches on the population of Spain confirmed his theory that 'the number of inhabitants is always related to the amount of provisions available'. Political science historians state clearly that Townsend was one of the originators of the idea that 'the increasing population tends to out-strip the means of sustenance'. Buckle (1867) stoutly maintained that Townsend is to be adjudged the precursor of Malthus, whilst McCulloch (1859) asserted that 'Townsend's ideas were not so much a foreshadowing of Malthus's theory as the theory itself'.

Among Townsend's plans for the prevention of pauperism was a scheme of social insurance. He was impressed by a report that in some parishes in consequence of the activities of the Friendly Societies the Poor Rates had actually been reduced. For a small weekly subscription they provided sickness benefit, burial expenses, and free medical treatment. He therefore suggested the compulsory establishment of Friendly Societies in every parish, and under this scheme no man would be entitled to parochial relief unless he was a member of a Friendly Society.

Malthus in his 'Essay on the Principle of Population' (1803) mentions Townsend as one from whom he derived his ideas on population. He was not, however, in favour of Townsend's insurance proposal, because the single man would have to contribute eight times as much per week, as, say, a married man with four children, which he considered would 'operate as a heavy fine upon bachelors and a high bounty upon children'. He acknowledged that Townsend had 'treated the subject with great skill and perspicuity'.

Following the Reform Act of 1832 a Commission was set up to enquire into the working of the Poor Laws, and its report shows how much Townsend's writings influenced the formation of the Poor Law Amendment Act of 1834. As a result of this Act it was illegal for parish authorities to relieve an able-bodied person except by admission to a workhouse. The ultimate effect of the Act on the pauperized workman was as Townsend had predicted, for the majority of the lazy, rebellious paupers were transformed into decent hard-working citizens. His scheme of social insurance, however, was not accepted, but let us not forget that it was adopted by Lloyd George in the first Health Insurance Act of 1911.

Townsend achieved celebrity as a geologist. Histories of geology reveal the indebtedness of the science to medical men who, as amateur or professional geologists, contributed much to the advancement of the science of geology and its subsidiary sciences, especially palæontology. The medical man's preliminary training in the basic natural and physical sciences rendered him a fit and proper candidate for the study of geology at a time when science was not considered to be a part of the liberal education of a young man.

It is astonishing to discover that so many doctors in active medical practice were geologists, and it is probably because geology is essentially an outdoor occupation suitable for the leisure hours of the busy general practitioner. Even in the present century medical men have made valuable contributions to geology as a result of their researches. Is the family doctor a better doctor, a better diagnostician, from being a geologist? According to Dr Gideon Mantell, a famous geologist, once a GP at Lewes, the answer is yes.

'Geology,' said Dr Mantell, 'presents peculiar attractions for those hours of leisure and relaxation which are so indispensable to maintain a healthy state of mind: for it requires the cultivation and application of . . . sciences which form the very foundation of medical knowledge . . . . The mind thus acquires the power of acute observation, of patient investigation, and of salutary caution in drawing inferences and arriving at conclusions – habits of the first importance in the discrimination of disease.'

Townsend began the collection of fossils early in life, and after fifty years he had amassed one of the largest collections in this country. The fossilized organic remains of animals and plants he regarded as relics left by the recession of Noah's flood, a theory prevalent at the period. At the end of the eighteenth century geologists were divided into two schools. There were those who followed the teaching of Abraham Gottlob Werner, Professor of Mining and Geology at Freiburg, that all rocks constituting the crust of the earth were originally deposited in water by chemical or mechanical means, a theory in complete accordance with the scriptural account of the Creation and the Deluge, as narrated by Moses in the book of Genesis, and on the other hand there were those who believed that some of the oldest rocks were consolidated by the agency of subterranean fire. Geologists who accepted Werner's aquatic theory were termed Neptunists, or Wernerians, whilst those who believed in the agency of subterranean fire came to be known as Plutonists, or Huttonians after Dr James Hutton, a Scottish medical man, who formed a theory that certain deeply seated rocks, such as granite, were consolidated from a molten condition, and hence are known as igneous rocks. He showed clearly that the earth's crust was built up by natural processes which are in action incessantly. The Huttonian theory, however, threw doubt upon the divine plan and the authenticity of the biblical story of the Creation, and thus began a conflict between geological science and religion which waged from the last decade of the eighteenth century until the middle of the nineteenth century. The clergymen-geologists, and there were quite a number, were solidly on the side of the Wernerians, their belief in the literal interpretation of the Mosaic story unshakeable. Townsend never ceased searching for 'traces of the Deluge' in mines, quarries, or wherever fossils, relics of the Deluge, were to be found, and the district around Bath and Pewsey was particularly fossiliferous. He was engaged for many years in gathering evidence for a defence of the Mosaic story of the Creation, and a vindication of the truthfulness of Moses as a historian.

Townsend's friend and neighbour, the Reverend Benjamin Richardson MA, Rector of Farleigh Hungerford, near Bath, was another enthusiastic collector of the 'Medals of Creation'. Townsend and Richardson were both members of the Bath and West of England Agricultural Society, and it was here that William Smith, a civil engineer and land surveyor, was fortunate in making two good friends. The triumvirate, Smith, Townsend and Richardson, were present at a meeting that made geological history. Smith, aware of the interest of his friends in rocks and fossils, together with their exact knowledge of the physical geography of Somerset and Wiltshire, demonstrated to his friends his discovery that in the Bath district the different strata could be distinguished by fossils peculiar to each stratum. The two clergymen 'were astonished and incredulous when their new friend taking up one fossil after another, stated instantly from what particular rock . . . the specimens were derived'. Nor were they less surprised when in the field. Smith took them to a hill outside Bath where he declared that it was capped by a particular stratum, the inferior oolite, and that in this stratum could be found fossils similar to those found in the same stratum at Bath. The doubting clergymen saw Smith's hammer dislodge fossils identical with those they had dug out of the inferior oolite, and they now grasped the reality of Smith's classic definition that 'the same strata were found in the same order of superposition and contained the same peculiar fossils'. Townsend and Richardson knew nothing of the order of superposition of the strata, but on the other hand Smith had very little knowledge of the true nature of these organic forms, and their exact relationship to analogous living types. The cabinets of Townsend and Richardson were arranged according to their classification in the animal and vegetable kingdoms, but Smith rearranged them in true stratigraphical order. It was clear to them that Smith's discovery would give a new impetus to the science of geology, and the trio agreed that it should be made known to the world at large.

A plaque on Townsend's former home at Bath, No. 29 Pulteney Street, is inscribed: 'In this house William Smith the Father of English Geology

dictated the order of the strata December 11th 1799.' Professor John Phillips, nephew of William Smith, has described the historic scene thus: 'One day, after dining at the house of the Rev. J. Townsend, the triumvirate agreed that the observations of Smith – verified and enriched by their joint labours – should be committed to writing. Richardson held the pen and wrote down from Smith's dictation the different strata (from the Chalk to the Coal stratum).' To a description of the strata was added a list of the more important fossils in them. The names of the fossils were supplied by Richardson and the names of the strata, mostly terms used by quarrymen, were given to them by Smith.

Townsend and Richardson were rewarded by being made honorary members of the Geological Society of London, whilst Smith was awarded the society's highest honour, the Wollaston medal, founded in honour of William Hyde Wollaston, physician and geologist.

Although the Huttonian theories were becoming firmly established, Townsend and the clergymen-geologists were prepared to defend the Mosaic account of the Deluge 'to the last drop of Noah's flood', and this explains the title of his book on geology and palæontology, which he termed 'The Character of Moses as an Historian, Recording Events from the Creation to the Deluge' (1813) which was published in two volumes. Volume I was sub-titled 'Geological and Mineralogical researches during a period of more than fifty years in England, Scotland, Ireland, Switzerland, Holland, France, Flanders, and Spain; wherein the effects of the deluge are traced and the veracity of the Mosaic account is established'. Twenty-one plates, mostly illustrations of fossils, are appended to this volume. Volume 2 is a study of languages, the result of his etymological and philological researches. Despite its curious title, at the time of publication the 'Character of Moses' was 'the best English book on stratigraphical and topographical geology'.

Townsend was the first to draw attention to the fossil sponges which abounded in the greensand of the Vale of Pewsey, and which, according to Dr Mantell, 'were so accurately described by the late Rev. J. Townsend, of Pewsey, and by Mr. Parkinson in his celebrated work on the organic remains of a former world'. The frontispiece of Volume 2 of Parkinson's 'Organic Remains' has an engraving of a fossil sponge which he had purchased from a fellow-collector, the Marquis of Donegal. This specimen, designated *Spongus townsendi* by Dr Mantell, is still preserved in the British Museum of Natural History (Fig 2).

Fig 2 Spongus townsendi (*Mantell 1822*). (*By courtesy of the Trustees of the British Museum of Natural History*)

I can find no evidence to justify the inclusion of a portrait of Townsend among the pioneers of British botany which appear in Thornton's great work, 'A New Illustration of the Sexual System of Linnæus' (1807), for Townsend wrote but one article on a botanical subject, which was published in Nicholson's *Journal of Philosophy* under the title 'The Food of Plants'. This was an account of experiments on the growth of plants in various soils and in gases such as oxygen and nitrogen.

In 1808 he published a volume of fifteen sermons, 'Sermons on Various Subjects', and a tract on politics, 'Free Thoughts on Despotic and Free Governments' (1781).

He was a firm believer in the doctrine of Utilitarianism. He became an intimate friend of Jeremy Bentham whom he first met in 1781, and it is known that they discussed their writings and such subjects as the means of subsistence, population and the burden of the Poor Rates.

Townsend described himself as a 'Well-Wisher to Mankind', but not only was he a well-wisher, but a well-doer also. I write him down as one who loved his fellow men. He cared as much for the physical ailments of his parishioners as he did for the cure of their ailing souls. The end he had in view was the future happiness of his countrymen. We have seen how much he contributed to the improvement of society, to the advancement of medicine, and to the development of the science of geology.

He died on November 9, 1816, and was buried within the precincts of St John's Church, Pewsey, where a tablet has been erected to his memory.

Acknowledgments: I am grateful to Dr Ida Macalpine and Dr Richard Hunter for permitting me to read and quote from Townsend's writings on Vital Air, and for their help in many other ways; to Dr and Mrs V A Eyles for scrutinizing the section of my paper that deals with Townsend as a geologist; and to Major and Mrs Davies Gilbert for allowing me to quote from the diaries of their distinguished ancestor.

BIBLIOGRAPHY

Anon (a member of the houses of Shirley and Hastings)
(1840) The Life of Selina, Countess of Huntingdon. London; pp 14, 30, 44
Britten J & Boulger G S (1893) A Biographical Index of British and Irish Botanists. London
Buckle H T (1867) A History of Civilisation in England. London; 2, pp 120 (footnote), 394
Cartwright F F (1952) The English Pioneers of Anæsthesia. Bristol
Davis A G (1943) *Proc. Croydon nat. Hist. Sci. Soc.* **11**, 123-145
Dictionary of National Biography (1899) 57, pp 106, 107
Fenton C L & Fenton M A
(1952) Giants of Geology. New York; pp 70–83
Finlayson G F (Keeper of Manuscripts, University Library, Edinburgh) (1968) Personal communication
Geikie A (1905) The Founders of Geology. 2nd ed, London; p 388
George M D
(1925) London Life in the XVIIIth Century. London; p 403
Gide C & Rist C (1915) A History of Economic Doctrines. 2nd ed, London; p 120–138
Graves R (1772) The Spiritual Quixote, or the Summer's Ramble of Mr Geoffrey Wildgoose. Reprinted 1926, Ed. C Wibley. London
Jukes J B (1862) The Student's Manual of Geology. Edinburgh; pp 375, 376
Leitch D (1945) Geology in the Life of Man. London; pp 64, 110, 111
Loch C S (1923) Palgrave's Dictionary of Political Economy. London; 3, 553, 554
McCulloch J R (1859) Lord Overtone's Collection of Scarce and Valuable Tracts. No. 9. London; preface pp xix, xx
McKeown T (1967) *Proc. roy. Soc. Med.* **60**, 575
Malthus T R (1803) Essay on the Principle of Population. 2nd ed., reprinted 1914. London; 2, 223
Mantell G A
(1822) Fossils of the South Downs. London; p 164, Tab. xv, Fig 9
(1850) Pictorial Atlas of Organic Remains. London; p 101, plate XLI
(1853) The Medals of Creation. 2nd ed., London; 1, 225, 231
(1864) The Wonders of Geology. 8th ed., London; p xxii
Mitchell S (1872) *Bath Field Club Proc.* **2**, 304–342
Namier L & Brooke J (1964) History of Parliament: The House of Commons 1754–1790. Oxford; 3, 536, 537
Parkinson J (1808) Organic Remains of a Former World. London; 2, 126, 128, 129
Pye-Smith J (1852) The Relation between the Holy Scriptures and some parts of Geological Science. 5th ed., London; p 56
Roberts F (1955) *Proc. roy. Soc. Med.* **48**, 785
Silverman H A (1950) The Substance of Economics. London; p 364
Southgate G W
(1946) English Economic History. London; pp 170, 277-86
Todd A C (1967) Beyond the Blaze: A Biography of Davies Gilbert. Truro; p 23-31
Warner R (1830) Literary Recollections. Bath; 2, 94-117
Webb B & Webb S (1929) English Local Government, English Poor Law History. London; Pt 1, p 234; Pt 2, Vol. 1, pp 8, 11, 16, 21, 23, 25, 43, 67; Pt 2, Vol. 2, pp 537, 547, 565
Woodward H B
(1907) History of the Geological Society of London. London; pp 5, 17
(?1912) History of Geology. London; pp 20, 34, 38, 45, 55
Zittel K von (1901) History of Geology and Palæontology. Trans. M M Ogilvie-Gordon. London; p 110

Meeting November 6 1968

Paper

Kergaradec, Friend of Laennec and Pioneer of Fœtal Auscultation

by J H M Pinkerton MD FRCOG
(*Department of Gynæcology, The Queen's University of Belfast*)

It is generally stated that the fœtal heart sounds were first heard by Mayor of Geneva in 1818. De Lee in his textbook (De Lee & Greenhill 1947) made a more guarded statement that while 'Mayor of Geneva in 1818 described the fœtal heart tones it is believed they were first heard by Phillipe Le Goust in 1650'; he adds significantly 'Le Jumeau de Kergaradec in 1822 published a monograph on the subject which is classic'. What are the facts? Alistair Gunn, in a paper read to the Section of Obstetrics and Gynæcology of this Society in November 1952 (Gunn & Wood 1953), gave a precise account of the little we know of the history of fœtal heart auscultation before Laennec. He says:

'The stethoscope was brought into use for midwifery by doctors very soon after its introduction by Laennec in 1819. Previously there had been only two accounts of anyone listening to the fœtal heart, and these were not written by the people who had listened. The earliest of all is from France. Round about 1650 a group of physicians in Niort spent some years wrangling about the functions of the fœtus. One of them, Phillipe Le Goust, in a poem written in the local dialect, makes fun of his colleague Marsac [also a poet] for claiming to hear the heart of the fœtus beating "like the clapper of a mill".'

I have not myself been able to see the original work of either Le Goust, which was written in Limousin, a local dialect long since obsolete, or