

Obituary

CHARLES SINGER (1876-1960)

by E. Ashworth Underwood

CHARLES JOSEPH SINGER was born in Brunswick Square, Camberwell, on 2 November 1876. It was within the sound of Bow Bells, and Singer used to say that he was a true Cockney. He was the fifth child and fourth son of the Rev. Simeon Singer and Charlotte Pyke. In 1879 the family moved to St. Petersburgh Place, Bayswater, as his father had become Rabbi of the New West End Synagogue. To his father Singer owed a great deal, and they were very much attached to each other. It was a scholarly household; for the Rev. Singer was not only beloved for his pastoral activities, but he was a fine Greek and Hebrew scholar, a great lover of the English Bible, and the author of the standard edition and translation of the Jewish liturgy, a work which still holds its place throughout the world. It was in these early years that Singer laid the foundations of his deep knowledge of the Old and New Testaments, books which were constantly at his hand. Singer started to learn literary Hebrew at the age of four, and this was the beginning of his great interest in languages and philology.

After some early education at Notting Hill Singer entered the City of London School when he was almost twelve. The headmaster was Edwin Abbott, brother of the celebrated Greek scholar, Evelyn Abbott. When he was thirteen Singer was well embarked on Latin and Greek, and he also did some science, which was mainly chemistry. But he was not to win renown as an orthodox Greek scholar at a university; for when he was still under sixteen his form master discovered his interest in Darwin and in dissection, and his father was advised to take him away from school. Singer left in the summer of 1892. It was decided that he should study medicine at University College, London, and he therefore spent a year at a tutorial college cramming for his 'Matric'. In September 1893 he started First Medical at University College, did very well in zoology, and after a year decided to take his B.Sc. with special reference to zoology. After a year under Weldon he was a demonstrator. One day the Inspectors for the University Grants Committee came round the laboratory, and the President of Magdalen College at Oxford, who was an Inspector, told Singer that in a week's time there was an examination for a scholarship in zoology at Magdalen: would he go in for it? It was arranged that he should do so; some of the questions suited Singer well, and he got the scholarship easily.

Singer went up to Oxford in January 1896, and he began to read animal morphology, which was professed by Ray Lankester. But after a year Lankester resigned to become Director of the Natural History Museum, and his chair was filled by Weldon. It was, however, with E. S. Goodrich, the demonstrator who soon succeeded to the chair, that Singer had the closest association. During the whole of his three years at Oxford Singer read only zoology. All his life it was perhaps his deepest interest. But circumstances dictated that he should continue with medicine, and in October 1898 he became a medical student at St. Mary's Hospital, Paddington, where he had as his teachers the younger Augustus Waller, H. G. Plimmer, Alexander Paine, Pepper, William Collier, and Arthur Luff. In the autumn of 1903 Singer passed the examination for the Conjoint qualification. On the day on which the results were announced he was appointed as medical officer to a small expedition under Sir John Harrington to delimit the Abyssinian frontier with the Sudan.

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Returned from his interesting and lengthy Abyssinian trip, Singer did house jobs at St. Mary's, and was for a year at the Sussex County Hospital, Brighton. He then spent over a year at the Government Hospital at Singapore, but had to return in the summer of 1908 owing to his father's death. He now held posts at St. Mary's Hospital, at the Great Northern, and at Great Ormond Street. But he then became medical registrar to the Cancer Hospital in Fulham Road, and in 1909 he was appointed physician to the Dreadnought Hospital. These last two posts he held until he went to Oxford in 1914. The Dreadnought gave him a chance of continuing the study of tropical diseases, in which he had always been very interested. At the Cancer Hospital he carried out much clinical and laboratory research, specially on gastric carcinoma. He also started in consulting practice, first at his home in Gloucester Terrace, and then in Upper Brook Street. In July 1910 he married Dorothea Waley Cohen, who is well known as a distinguished writer on alchemical and mediaeval manuscripts. Through the years she gave him the greatest assistance in his work, and this help he constantly acknowledged in his many publications.

Singer published his first historical paper—on Benjamin Marten—in 1911, and he was an original member of the History of Medicine Section of the Royal Society of Medicine, which was formed in 1912. He came much in contact with Osler, whom he had first met when he took his Oxford M.B. in 1905, and in 1914 the latter asked Singer to accept a studentship in pathology at Oxford, the duties of which were to be mainly historical. The Singers therefore moved to Oxford, and with their characteristic energy and considerable personal expenditure and with the backing of Falconer Madan, Bodley's librarian, they had soon equipped and opened a History of Science Room in the Radcliffe Camera. In this all books relating to that subject were collected together, and Mrs. Singer carried this work on while Singer was in the army.

Singer had by then published several historical papers, among which was his very brief introduction to his work on St. Hildegard of Bingen (1913). He had been working intensively on his photographic copies of the St. Hildegard manuscripts, and he had already drafted a long study of the subject. In a search for further manuscripts he and his wife were in Germany in July and early August 1914, and they just succeeded in getting out on the declaration of war. Alas, his own manuscript study was lost with much of their luggage. He had to write it again, and for this and other historical papers he was later awarded the Oxford D.Litt.

Singer was commissioned early in the war as a pathologist. He was first stationed at Chatham, and in the spring of 1916 he was sent out to Malta, where he worked with Sir Temistocle Zammit on certain archaeological inquiries which were not published until 1924. After that Singer was in Salonika until early 1918. On his demobilization after the end of the war he returned to Oxford, where he was then appointed lecturer in the history of biology. But owing to deaths and retirements conditions were not then as favourable to his schemes as they had been. It was for that reason that Singer accepted in 1920 the offer of a lectureship in the history of medicine at University College, London, and in that year the Singers removed to 5 North Grove, Highgate, which soon became known for its hospitality and the diverse interests of those who accepted it.

By this time Singer was already widely known as a notable historian of medicine. In 1915 he had reprinted one of the earliest works dealing with the history of tropical medicine; and in 1917 there appeared the first volume of his *Studies in the History and Method of Science*, a collaborative work which he edited, and to which he contributed

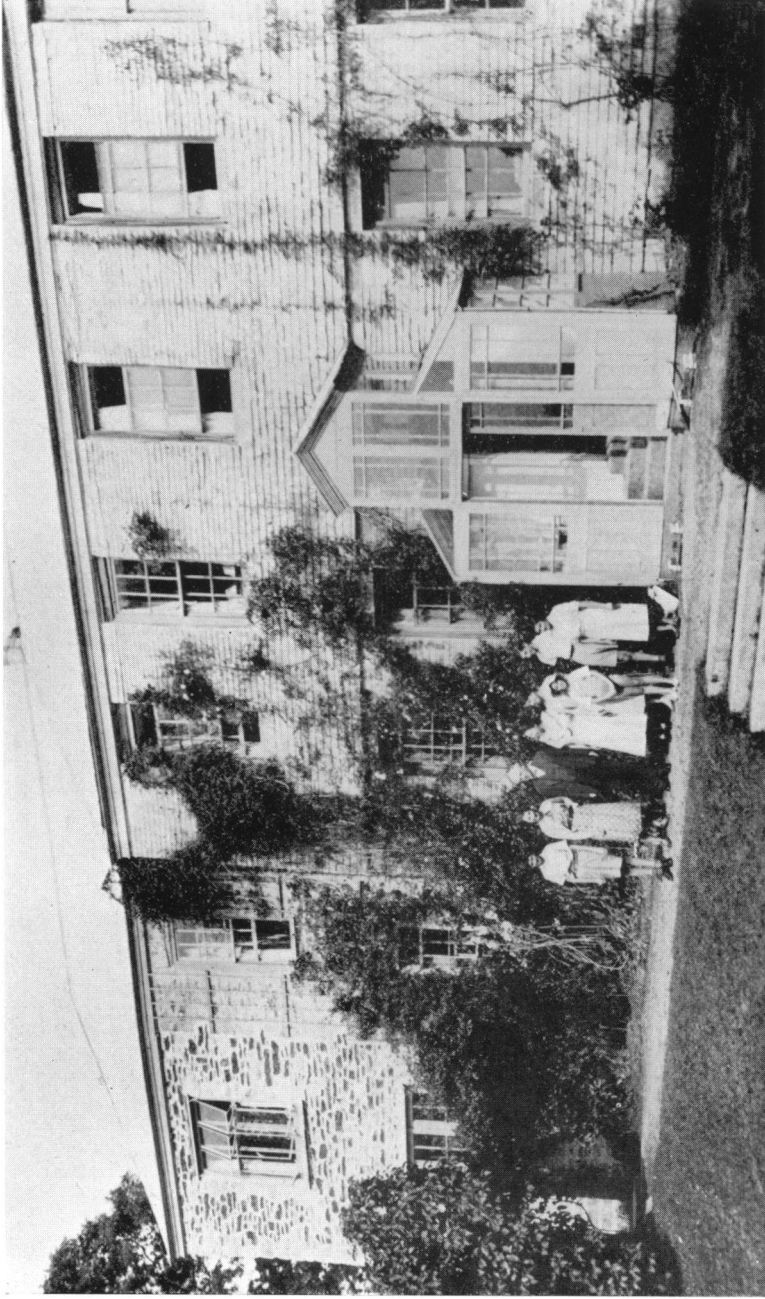
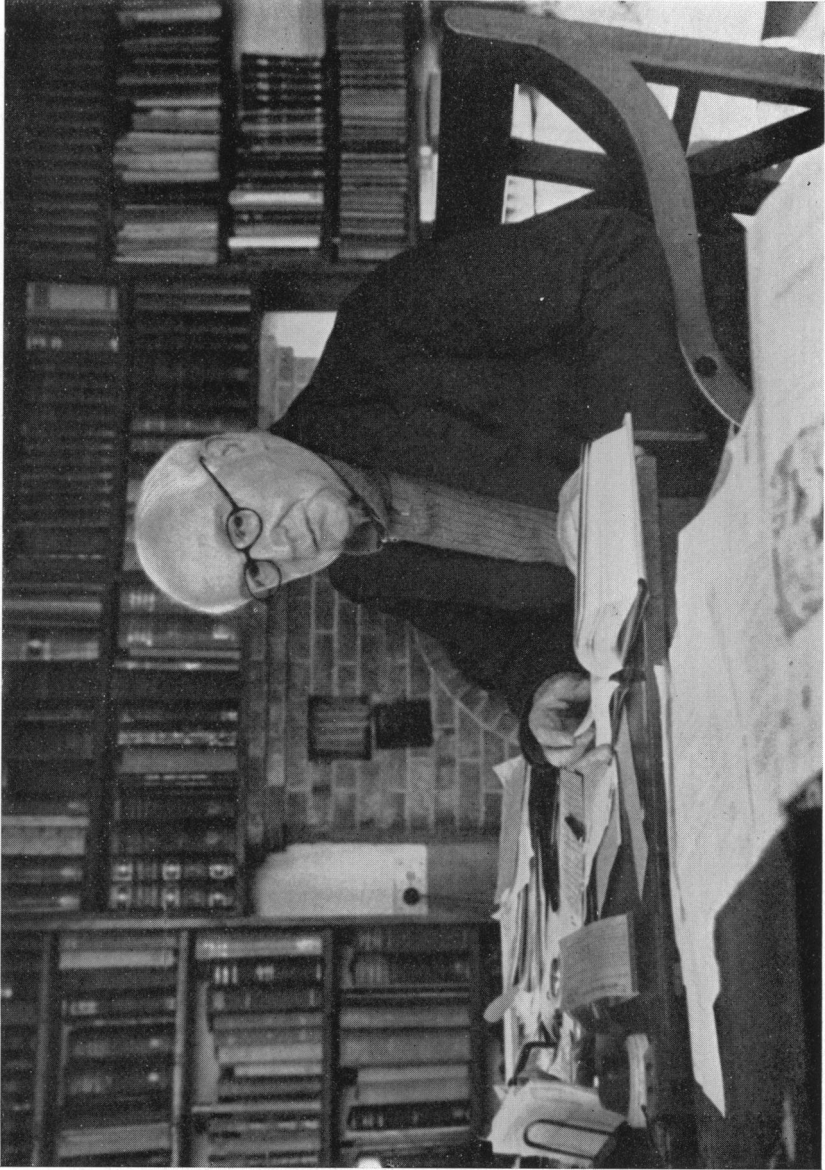


Fig. 2
The Singers and friends outside
'Kilmarth', Par, Cornwall



Photograph of 1952 by E. A. Underwood

Fig. 1

Charles Singer at work in his library

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the long definitive version of his Hildegard investigation, and also an important essay on a hitherto unknown anatomical text. That Singer was able to publish these works and also some fifteen notable papers on mediaeval and renaissance medicine and other subjects was due largely to the assistance which he received from his wife. From this period date his writings on the early history of the microscope, and his first paper on Anglo-Saxon medicine (1919).

As Singer once said to me: 'The history of my life in London is in my writings'; and such indeed is the case. While at University College he continued his Anglo-Saxon studies, and 1920 saw the publication of his important lectures to the British Academy on early English magic and medicine. This was followed by the publication of the second volume of his *Studies* (1921), to which he contributed the article on Greek biology which introduced all his basic ideas on that subject. To that work he also contributed a valuable essay on the early history of optical apparatus. The two volumes of these *Studies* have of course become classics. In 1922 Singer published two small works which have instructed and stimulated many readers, and continue to do so. These are his *Greek Biology and Greek Medicine* and his interesting account of the discovery of the circulation of the blood. Meanwhile he was continuing his studies of early anatomical works. He had become a Fellow of the Royal College of Physicians in 1917; and in 1923 and 1924 he delivered on that subject the FitzPatrick Lectures at the College. These lectures were published in an extended form in 1925 with the title *The Evolution of Anatomy*. They take the subject up to the time of Harvey, and it is significant that Singer did practically no original research dealing with the history of medicine later than Harvey's day. In 1925 he published his annotated edition of the *Fasciculus Medicinæ* of 'Ketham'; and in the following year there appeared his valuable facsimile edition and translation of the 1493 Italian *Fascicolo di Medicina*. He had, in collaboration with Sir Richard Livingstone, been largely responsible for the launching of the 'Legacy' series, and to the first of these volumes to appear, *The Legacy of Greece* (1921), Singer contributed the chapters on biology and medicine. To subsequent volumes in this series he made contributions and in 1927 he edited with Edwyn R. Bevan, *The Legacy of Israel*, to which he and his wife contributed. Two further interests had meanwhile been proclaimed in no uncertain manner. One was his interest in the early history of syphilis, and in 1925 he issued an adaptation of Sudhoff's book of facsimiles of the earliest printed literature of that subject. In 1923 Singer had published a short account of early herbals, and in 1927 he published his very important paper on 'The Herbal in Antiquity'; this study has not yet been superseded.

During these first seven years at University College Singer had established an international reputation not only for his scholarly work, but also for his great interest in the activities of others. Many were the ideas which were born in his fertile mind. At that period University College had many distinguished scientists and scholars. Singer was especially familiar with Platt and Grattan. Arthur Platt, the professor of Greek, was possibly the best scholar in the College, and Singer considered that he was the ideal professor. He and Singer worked through practically the whole of the Hippocratic Corpus together. With J. H. G. Grattan, Singer started on some Anglo-Saxon studies which were not to come to fruition until after Grattan's death well over twenty years later. In 1928 Singer published the first of his works containing reprints of some of his published papers. This was *From Magic to Science*, a book which was recently reprinted. That year also saw the publication of his well-known *Short History of Medicine*.

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In 1929 Singer received an invitation to give the first Noguchi Lectures at Johns Hopkins University, Baltimore. The invitation had come largely through 'Popsy' Welch who, after an incredible career as a pathologist and bacteriologist, and as the founder of the School of Public Health and later of the Institute of the History of Medicine at Johns Hopkins, was thinking of retiring from his Directorship of this Historical Institute. Other invitations were soon received, and the Singers left this country in the late spring of 1930. In Baltimore he gave five Noguchi Lectures on the fall and rise of medicine, which were very successful. These lectures were never written out, and were consequently never published. At that time there was a movement at the Johns Hopkins to secure Singer as Welch's successor. But in that year Singer was elected to an honorary chair of the history of medicine at University College, London, and to the latter he remained devoted during the rest of his official life. In the following year he had a formal invitation to the Johns Hopkins chair, which he refused.

After spending a short time in some of the Eastern cities, the Singers proceeded to the Huntington Library at Pasadena, near Los Angeles, where they spent several weeks. From there they proceeded to the University of California at Berkeley, where they spent about three months. Singer had been invited to come as visiting professor, and while he was there he gave a course of about fifty lectures on the history of science.

In 1931 Singer was again invited to act for a year as visiting professor at the University of California. He and his family left in November and spent a month in Jamaica en route. They settled in Berkeley early in January 1932. Apart from a period of absence when he had pneumonia, Singer lectured on the history of science throughout the academic year. The Singers returned by way of Hongkong and Ceylon. They had been away for sixteen months. On their return in April 1933, Singer decided that it was desirable to escape the fogs and damp of London in the winter. He and his wife decided to live in Cornwall, and they moved into 'Kilmarth' in February 1934. From then until the outbreak of war, when University College was evacuated, Singer lectured during two of the three academic terms each year, and in the lecture periods he had rooms in London.

In the years 1929 and 1930 Singer contributed to collaborative works, and wrote many essay reviews. In 1931 there appeared his *Short History of Biology*, which was based on the lectures which he had given at Berkeley in 1930. This excellent book was twice revised by him, on the second occasion in the last year of his life. This was his last major work until after the outbreak of war. In the six years before the war he was much engaged with the activities of the Society for the Protection of Science and Learning, in the period when Dorothea was doing so much for the refugees from Nazi tyranny. But in 1941 Singer published his *Short History of Science*, a book which covered the whole field to 1900 in a very readable manner. It should be mentioned that during much of the war period Singer voluntarily undertook the teaching of practical biology to the pupils of the King's School at Canterbury, which had been evacuated to Cornwall. He had one of the rooms in 'Kilmarth' fitted up as a laboratory for that purpose, and his pupils had remarkable success in examinations.

Singer retired from his chair at University College in 1942. In 1944 he began to work on the history of alum and four years later the result was published in the beautiful volume, *The Earliest Chemical Industry*. I have referred elsewhere to the post-war period as being a remarkable Indian summer in Singer's literary and research activities. From 1943 onwards his interest in Vesalius began to be expressed in journal articles, and in 1946 in collaboration with Professor Chaim Rabin *A Prelude to*

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Modern Science, a valuable work on the *Tabulae anatomicae sex*. His work on Vesalius continued as opportunities permitted, and in 1952 he published under the title *Vesalius on the Human Brain* an annotated translation of the seventh book of the *Fabrica*. He had also been collaborating for some years with Grattan in an attempt to complete the work which they had begun at University College many years before. The result of this collaboration was also published in 1952 as *Anglo-Saxon Magic and Medicine*.

Singer had long felt that an extensive work on the history of technological processes was badly wanted, and by about 1950 he had himself laid the foundations for a great co-operative work, had made arrangements for publication, and had secured associate editors, chief of whom was the late E. J. Holmyard. This enormous project took up much of Singer's time and indomitable energy. The five volumes of *A History of Technology* were published between 1954 and 1958. Apart from this Singer's last major published work was his annotated translation of Galen's book *On Anatomical Procedures*, published in 1956.

The University of Oxford gave Singer an honorary D.Sc. in 1936, and during his lifetime he was probably the only man who had the three Oxford doctorates in medicine, science, and letters. He was president of the History of Medicine Section of the Royal Society of Medicine (1920–2), and first president of the British Society for the History of Science (1946–8). In 1947 he was president of the International Union for the History of Science. He gave the L. T. Hobhouse Memorial Trust Lecture in 1951, and the Lloyd Roberts Lecture in 1954. He was an Honorary Fellow of the Royal Society of Medicine, an Honorary Fellow of Magdalen College, Oxford, and Fellow of University College, London. He was always active in the international field. In 1922 he was president of the Third International Congress of the History of Medicine, and in 1931 president of the Second International Congress of the History of Science. From 1928–31 he was president of the Académie Internationale d'Histoire des Sciences, a body to which he had devoted much time and enthusiasm for many years.

In 1953 Singer was the recipient of a large work containing nearly a hundred scholarly essays written in his honour, and published under the title *Science Medicine and History*. A few of us took a specially bound copy down to Cornwall to present to him. The ceremony was to have been performed by Sir Arthur MacNalty, but he was prevented from attending, and the presentation was made by Sir Zachary Cope on 17 December 1953 at a memorable lunch at Fowey. Singer was obviously greatly touched by this occasion. *Science Medicine and History* included a full bibliography of Charles Singer, and a list of his notable writings since the termination of that bibliography will be found at the end of this tribute.

Charles Singer was sturdily built, and he might have had some success in sport if it had appealed to him. He rowed quite well at Oxford, and he also played some tennis. But he had latterly little physical recreation, except walking in the Cornish countryside to which he was so much attached. His chief mental recreations were talking, reading, and a game of cards in the evening. He was a brilliant conversationalist, and he flitted like lightning from one topic to another. His talk was salted with stories and personal anecdotes. His many friends will remember the long library at 'Kilmarth'—I have paced it often, and it was seventeen yards from the door to the great window looking over garden and fields to St. Austell Bay, in front of which Singer had his desk. There he would be found, at work on his letters, quite early in the morning. There during most of the day he worked, apart from his accustomed

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nap after lunch. Guests and visitors used the library for talk and for recreation. But it made no difference to him. He would turn from his work, join in the conversation, and then turn back to the job when it suited him. He had nearly all his life been in the habit of waking during the night, reading for an hour or so, and then falling asleep again. It was thus that much of his general reading was done.

In the last stage of his life Charles Singer's excellent health began to fail slightly, and he had occasional attacks of cardiac asthma, which upset his accustomed routine. But the gods smiled on him to the end. When he passed over during his afternoon sleep on 10 June 1960, all the many people whom he had helped and encouraged lost a friend, the Cornish scene lost a 'character', and the world of learning lost a scholar who in his own way is irreplaceable.

MAIN PUBLISHED WRITINGS OF CHARLES SINGER SINCE 1953

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