

Book of the Quarter

HENRY WELLCOME

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Until reading this book, I had never considered the difficulties facing a biographer attempting to bring life into the character of a dead subject. Henry Solomon Wellcome—of Burroughs Wellcome and Co, the Wellcome Trust, etc—died in 1936. He left a wealth of personal papers and correspondence, but there were few contemporaries still alive when the book was written and those few remembered Wellcome only in his later, introspective, almost reclusive years; not the young, enthusiastic, entrepreneurial Wellcome who co-founded a world famous pharmaceutical company, personally established a host of institutes, laboratories, museums and libraries (a simplified list of 18 is given in the book), pioneered tropical medicine, sponsored archaeological expeditions, established the Wellcome Trust and amassed and spent a personal fortune on the collection which led to the Wellcome Historical Medical Museum and the library of the Wellcome Institute for the History of Medicine.

Despite having to work from archival material, Robert Rhodes James has produced an exceptional book which is not only a work of great scholarship but is also eminently readable. The life, character and achievements of Wellcome emerge clearly, illustrated in detail by family and business correspondence and short, fascinating accounts of his associates, friends and acquaintances. With anyone else, this might have been banal, but Wellcome's wide circle of friends and acquaintances was the Who's Who of the late 19th and early 20th century. Wellcome's business and scientific achievements, however, provide the greatest interest. Success seemed just to happen, as naturally and inevitably as night follows day. This must be one of the characteristics of a great man and there are many hints and clues in the book as to the character traits and business principles which resulted in Wellcome's successes. These cannot be the whole story, however, as Wellcome clearly lived in 'interesting' times. One of the more fascinating aspects of the book, skillfully managed by the biographer, is the linking of many delightful cameos of life in the late 19th and early 20th century to create an instructive picture of the exciting and dynamic environment in which Wellcome could achieve so much, so quickly, so young.

Henry Wellcome, famous British businessman and entrepreneur, was an American, born in 1853 in a small town in Northern Wisconsin. The family was poor and deeply religious but, nevertheless, his childhood was a happy one and family circumstances improved when they moved (by covered wagon) to Garden City, Minnesota. Here, Wellcome came under the influence of his Uncle Jacob, a respected country doctor, and William Worrall Mayo, the first of the famous names that crop up everywhere in the book. Mayo was a family friend and father of the Mayo's who founded the Rochester clinic. Both encouraged his education and interest in science and Wellcome was given an early introduction to the realities of medicine when, at the age of 8, he found himself assisting his uncle in the middle of a Sioux uprising. This had a lasting impression as he felt

that the Sioux had been treated very badly by the US government, and in later years he was to become an outspoken champion of Indian rights, which did not endear him to politicians. Leaving school at 13, Wellcome worked in his Uncle's 'drug store', developing his interest in science and, the book hints, becoming quite a talented artist. This talent was to stand him in good stead later, resulting in quality of presentation and design becoming one of the fundamentals of Burroughs Wellcome's business practice. The pleasing feature of this part of the book is the picture it paints of life in a growing frontier town in the latter part of the 19th century. Schooling, helping out in the store, learning canoeing with the local Indian children, collecting artefacts (a paeolithic arrowhead started Wellcome on his passion for collecting) are all woven together. With the exception of the Sioux uprising, this gives a wonderful impression of normality for a time that is, for most of us, more usually associated with the cowboy excesses of Clint Eastwood and John Wayne.

At age 17, Wellcome was employed as a prescription clerk by a pharmaceutical chemist in Rochester, becoming the breadwinner of the family. This was the start of his long involvement with pharmaceuticals, and the book charts vividly the development of his skills and character. Encouraged by Mayo, Wellcome moved to Chicago to study at the Pharmaceutical College, but this was not a happy time because of difficulties with his employers (the only time this is recorded). Matters improved when he transferred to the Philadelphia College of Pharmacy where he was to start a lifelong friendship with the scholar and scientist Frederick Belding Powers, later instrumental in establishing Wellcome's laboratories as centres of excellence. There Wellcome left a notable impression on his teachers and his graduation thesis was on a new method of producing urethral suppositories and, characteristically, this was commended on multiple grounds. Not only were the suppositories far superior to existing products in shape, smoothness and consistency, but the production method was cheap and reliable. Wellcome even included suggestions for storage, packaging and promotion—the complete, marketable product—a harbinger of things to come. Sadly he forgot to patent this invention, a mistake he was never to forget, although he later boasted that he had not patented it as 'it was his personal contribution to the development of good pharmacy and the relieving of pain'.

After graduation, Wellcome was employed as a travelling salesman, first by Caswell Hazard and Co and then by McKesson and Robbins, both prestigious international pharmaceutical companies based in New York. This was when he honed his business skills, and the emergence of some of his more determined characteristics is described. He travelled widely, impressing his employers with his sales performance and frugality, published regularly (on temperance and sobriety as well as chemistry) and generally established his reputation. He is described as slim, well dressed, smart, alert, humble, modest, reticent and powerfully ambitious, an interesting combination of characteristics which reappear (minus the humility, modesty and reticence) in later chapters of his life. Certainly, Wellcome impressed his employers so that when, after two years, he decided to leave and join Silas Burroughs in Britain, McKesson and Robbins appointed him at the age of 26 the worldwide agent for their products. In the same agreement, Wellcome cleverly included a clause to the effect that its provisions would be binding on any future partners, a characteristic foresight which proved invaluable in the troubles to come.

The establishment of Burroughs Wellcome and Co, and the relations between the two partners, take up a major part of the book and provide many rare insights into the early development of the pharmaceutical industry in Britain, as well as into human nature. The business was based on sale of imported US drugs, John Wyeth supplying Burroughs and McKesson and Robbins supplying Wellcome. Initially, Wellcome could make no financial investment in the company and his attempts to redress this, and of Burroughs to prevent it and retain control, were a major cause of conflict which developed soon after formation of the partnership. There were other causes. Burroughs was an exceptional salesman who liked to travel, having little interest in the day to day running of the business. Wellcome, in contrast, was meticulous in his attention to detail, getting involved in all aspects of management, sales and promotion. Burroughs was highly political, his views and activities becoming more radical as the years progressed, with increasing involvement of the company. Wellcome preferred to keep politics and company separate and became increasingly irritated by Burroughs' often spectacular attempts to thwart him. Burroughs lived and travelled in style at the company's expense, whereas Wellcome at this stage was financially prudent in the extreme. The partnership could not last and the book chronicles, often entertainingly, the initial disputes degenerating over the years into acrimony and then litigation, culminating in a ridiculous court case thrown out by the judge in Wellcome's favour. Sadly, the acrimony and litigation continued even after Burroughs' death, almost certainly as a result of a highly injudicious letter in which Wellcome strongly counselled Burroughs not to marry the lady who subsequently became his wife.

The pharmaceutical industry in the late 19th and early 20th century was a very different business to that which exists today. In the beginning, Burroughs Wellcome and Co only sold 31 products, and of these only 9 or 10 could be considered pharmacologically (or toxicologically) active. The secret of their success was in presentation and marketing (perhaps not so different from the business today) and the lack of local competition. The pills they sold were new compressed tablets, produced on patented American machines, which were far superior in quality and consistency to those produced in Britain. Wellcome promoted his products widely, with highly qualified salesmen, quality advertisements in reputable medical and pharmaceutical journals, and occasional spectacles. The Burroughs Wellcome exhibition stand at a BMA meeting in 1880 created a sensation, introducing British medicine to American style advertising for the first time. There were other initiatives, perhaps not quite so appealing to a modern ABPI Code of Practice Committee. Hospitals were gifted with supplies of drugs and sent a standardised letter which clearly inferred, 'Tell your friends'. Henry Morton Stanley, the famous explorer and friend of Wellcome's, received a beautifully crafted tropical medicine kit, designed by Wellcome himself. Once news was spread, every expedition and even the British Army had to have them. Perhaps Wellcome's most decisive contribution, however, was the simple invention and copyright of the term 'Tabloid'. This was used as a brand name for all Burroughs Wellcome products, even photographic chemicals and tea, and eventually it became synonymous with quality worldwide. Any breaches of copyright were ruthlessly suppressed in the courts, another facet of Wellcome's approach to business and recognisably American.

Wellcome's social and private life are dealt with fully in the biography, with

many snippets of information woven entertainingly into the story of the development of Burroughs Wellcome and Co. After arriving in London he rapidly acquired a wide circle of friends, including Gilbert and Sullivan, Henry Irving, Oscar Wilde and the Chief Clerk of the Household of the Prince of Wales. Eminent medical and scientific figures were courted assiduously, and these contacts were to stand Wellcome in good stead when he was later building up his laboratories, as they supplied him with a steady stream of talented young researchers. Wellcome entertained lavishly, and in doing so effectively promoted the company and, it must be said, himself. He worked tirelessly on Anglo-American relations, entertaining visitors to Britain and providing introductions in America. His rescue of a visiting American actress who almost drowned, with him, in a boating accident, and his celebrated design of a cane palquin for a famous lady explorer did his image no harm at all.

Burroughs died in 1895—a fitness fanatic, he caught a chill while cycling and succumbed to pneumonia—and Wellcome took control of the company. There followed what the biography describes as the most active, remarkable, inspired and constructive period in Wellcome's life, an assessment to which I subscribe because it is an entertaining challenge to follow the chronology of the wide range of activities on which Wellcome then embarked. These included marriage, the establishment of a range of innovative laboratories, major forays into tropical medicine and, later, archaeology, and a steadily increasing obsession for collecting historical, medical and anthropological artefacts which lasted until his death. Each are dealt with in absorbing detail.

Wellcome's marriage, and the circumstances of its failure, were sad chapters which were to have long lasting effects. He first met Syrie Barnardo, daughter of the Dr Barnardo, in 1897 when staying at their home as a paying guest. By all accounts, Syrie was a beautiful, amusing, intelligent but determined individual and, at age 18, was 26 years Wellcome's junior. Nothing is known of their relationship over the next few years, as Wellcome destroyed all their correspondence but, lo and behold, Syrie turned up in Cairo in 1901 in time to welcome Wellcome on his return from the Sudan. Whereas few parents would happily countenance such a trip today, it was apparently quite commonplace for young ladies in 1901. Engagement and marriage soon followed, but not happiness. Wellcome expected a devoted wife who would be content to follow her husband, enthuse over his interests and allow him to decide everything. Syrie, the forerunner of emancipated womanhood, had thought that marriage would be an escape from the rigours of the Barnardo household, and she had no interest whatsoever in the pharmaceutical business or Wellcome's passion for collecting. Furthermore, from her letters, she detested travelling, particularly to remote, inhospitable places in search of 'curios'. From 1904 to 1909 they were scarcely ever in Britain, despite the birth of a son, Wellcome having discovered the travelling potential of the motor car. The result was inevitable, if surprisingly extreme. While in Quito, on US government business, Wellcome accused Syrie of an affair, there was a violent exchange and Syrie left, with their son, for home. Despite her many subsequent attempts at reconciliation, documented in touching letters, Wellcome never spoke to, or of, Syrie again. Although he was generous in her support, through intermediaries, he was very demanding in the control of their son and it was a crushing disappointment later to discover the son's learning difficulties (almost certainly dyslexia) and his lack of interest in

following his father's footsteps in the business. Wellcome's son enjoyed a long and happy life as a countryman and farmer. Syrie's history was more exciting. After eloping with Somerset Maugham, bearing him a daughter and being divorced by Wellcome as a result, she eventually divorced Maugham because of his blatant homosexuality. Castigated publically in print by Maugham, and defended in song by Noel Coward, she finished her life as the most fashionable (and most expensive) interior decorator on both sides of the Atlantic. When she died in 1955, a bust of Catherine the Great was presented to the Victoria and Albert Museum in her memory, by public subscription, an accolade never accorded to Wellcome.

Wellcome's enthusiasm for the establishment of research laboratories can be seen as a natural development of his business interests, but there is no doubt that this vision had incalculable consequences for the development of biomedical research in Britain. Burroughs Wellcome's early dependence on American imports was solved by the acquisition of some small British concerns, the rather ruthless termination of agreements with American suppliers and the establishment of local manufacturing, eventually using high capacity machines far superior to the patented American originals. Wellcome clearly saw the need for more basic research which would lead to wholly new principles of treatment—and his laboratories were established to do this. The Physiological Laboratory was set up in 1894, the Chemical Laboratory in 1896 and the Tropical Research Laboratories (in Khartoum) in 1902 and their output, and that of their successors, was remarkable over the years. The establishment of these laboratories was certainly Wellcome's greatest achievement, and the account of their development, the recruitment of key researchers (many of whom would go on to distinguished academic careers), their involvement in the early days of tropical medicine and biochemical pharmacology, and their triumphs and tribulations in time of war make absorbing reading. A few examples are illustrative of the fascination of this period.

—Wellcome's inspired appointment of Dale and his suggestion that he should research on ergot, eventually leading to Dale's Nobel Prize. Although Dale was to resign after Wellcome made a totally thoughtless appointment to the laboratory directorship, he returned as the first chairman of the Wellcome Trust, perhaps a measure of his respect for the institutions Wellcome had established.

—The British Government's belated recognition of Britain's dependence on German drugs at the outbreak of the First World War and Burroughs Wellcome's 'mobilisation' in response. Interestingly, this was mainly motivated by fears about British troops and venereal disease, and Burroughs Wellcome's solution was to develop Kharsivan, probably the first 'me-too', as a replacement for Salvarsan.

—Burroughs Wellcome Laboratories had by 1912 developed antitoxins to diphtheria, colon (?E coli), staphylococcus, typhoid, puerperal fever, rheumatic fever, scarlatina, ulcerative endocarditis, meningococcus, streptococcus, dysentery, gas-gangrene and tetanus, and vaccines for typhoid, cholera and Mediterranean fever. By 1918, the Physiological Laboratory was dispatching more than 1.5 million 'packages' of antitoxins per year. Where are these products now?

These advances were not achieved without some difficulties, notably, the infection and sometimes death of researchers working with Malta fever and yellow fever, battles with *The Lancet* and the US government over the quality of

Burroughs Wellcome antitoxins, skirmishes with anti-vivisectionists (in 1896!), and the injudicious disposal of a horse carcass, following experiments with anthrax, which resulted in the quarantine of several fields in suburban London. All of these issues, and more, are covered in detail, and they make fascinating reading for students of the history of the pharmaceutical industry.

This biography is so full of interest that it is impossible to catalogue it all; indeed to do so would spoil the adventure for the reader. Wellcome's own account of his explorations in Ecuador in search of cinchona bark is provided as an appendix. His work in the Sudan, at the invitation of Kitchener, the establishment of the research laboratory in Khartoum and a floating laboratory for research in the upper Nile, are described extensively. These made such a contribution to tropical medicine, and Wellcome's reputation, that he was invited by the US government to report and advise on conditions in Panama during the building of the Canal. His work and the report were apparently outstanding, despite their close association with the breakup of his marriage.

Wellcome's forays into archaeology and collecting, which became an obsession after 1918 and almost bankrupted the company, are lovingly and often amusingly described. His first archaeological dig, on which he spent four years, was a total failure but the inspired man-management techniques Wellcome used with the hostile, often drunken Sudanese labourers provide lessons for us all. His collection of artefacts, which eventually became so large and so diverse that it defied all efforts of cataloguing and presentation, became a serious problem for the Wellcome Trust after his death. Many of the more outlandish items are listed almost gleefully—why would anyone want twelve stuffed crocodiles, and several thousand knobkerries?—but the gems of the collection are national treasures. Many are illustrated beautifully in the book and there are amusing accounts of how they were obtained (usually deviously), and the trials of the long suffering Wellcome staff involved in their collection and disposal.

The last sections of the biography cover Wellcome's declining years when he became distanced from, but certainly not disinterested in, the company. The Wellcome Foundation was established in 1924 and the magnificent Wellcome Research Institute opened in Euston Road in 1929. He received his first honorary degree—from Edinburgh—in 1928, and was elected to the Royal Society and knighted in 1932. Just before his death, he returned to America to buy the old family home. He died in England, on 25th July 1936, of intra-abdominal malignancy, after a lifetime of chronic ill health from, probably, ulcerative colitis.

Even after his death, Wellcome provides a story. By forgetting to give the Wellcome Foundation charitable status, he left the Trustees with a company, numerous laboratories, museums and institutes, a library, the massive collection of artefacts, ongoing financial commitments to an American Indian settlement and, because of death duties, virtually no money. Income was available from the company but this had now lost its competitive strength. The account of how the Trustees, and in particular Henry Dale, turned the mess around deserves a book of its own. Fittingly, the final salvation came from the research output of the laboratories—trimethoprim, allopurinol, and azathioprine—although the laboratories were American, not British. The story is continued to the present day, ending, perhaps significantly, just before the hostile takeover of the company by Glaxo, in which the Trust acquiesced.

What can we make of Henry Wellcome from this biography? He was

undoubtedly clever, multi-talented and ambitious, with a wide range of interests. He had incredible drive and tenacity, not only in his major enterprises, but also in smaller, almost comical, endeavours. He spent six years persuading the US Senate to accept a portrait of Pocahontas, and a similar period producing a life-size portrait of George Washington in Masonic dress, for presentation to the Lodges of London. He had a dark side, manifest not only in his treatment of his wife, but also of his mother. Despite affectionate correspondence he failed to visit her in the four years before her death, although he knew she was seriously ill and he had been in America, and he failed to attend her funeral. Contrast this with his lifelong personal and financial support of the American Indian, who had, 'no better friend than Henry Wellcome'. This was a complex man. After reading this book, I will remember Wellcome as a colourful character with a powerful vision—to use science for the betterment of mankind. By recruiting the best possible brains and giving them the freedom to research and publish as they pleased, he established British research institutions that would become renowned worldwide, and raise the standards of pharmaceutical research for ever. This is his legacy to the pharmaceutical industry. His collection, once sneered at, is his legacy to the world.

This is a remarkable book about a remarkable man. It was a pleasure to review it.

Letter from Saudi Arabia

SCOTLAND IN APRIL

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Ex-pats love to go home and as often as possible. A surprise call from our son informing us that he had obtained his MRCP at the first attempt ('beat you to it, Dad'), was an excuse to hotfoot it to Bonnie Scotland for the ceremony.

Edinburgh was at its sunny best. There had been no ceremony in my day but this occasion was compensation indeed. It was above all a family gathering with tiny tots competing with the President's address, and grandparents straining not to miss a word. All colours and creeds seemed to be represented. To us who passed in the sixties the new Members, like new policemen, seemed oh, so young and there were many more ladies, some to our surprise unemployed but, hopefully, by choice. It was a time to meet old friends as well as the new Members. 'Did you get a key?' I asked my son. No, he didn't. My Membership scroll came with a key to the College. I never have had occasion to use it but still keep it. As a symbol it seems to make one belong. The President could not recall when giving a key stopped. Why had it? Did some exulting, joyous member, having celebrated beyond his capacity seek refuge for the night in its hallowed halls? I think not.

Our daughter had driven us back to Scotland from Somerset. We enjoyed being chauffeured. Well, why not? We ferried all the kids up and down, year in and year out and, anyway, they now prefer to drive. In Saudi Arabia the ex-pats drive defensively if they want to survive. Speed limits to the natives are the limits to which the vehicles can be driven; 100 mph bonnet to bumper pursuits are daily occurrences; seat-belts are ignored. Accidents are frequent and spectacular, especially during Ramadan, the month of fasting and the Haj, with the visiting pilgrims, and when on rare occasions it rains. However, returning ex-pats find the UK motorways far from hazard free; the unofficial speed limit seems to be 80 to 85 mph and the inside and centre lanes are dominated by speeding intercity coaches and enormous trucks bulldozing any slow traffic contemptuously aside.

And still the sun shone in Aberdeen which was celebrating five hundred years of university life. Was a sun barrier cream needed? As I could see no hole in the ozone layer above, I settled for a peaked cap. The wind was chilly for balding pates. Then to sunny Inverness.

Was this the same Scotland remembered of old—dreich, wet and cold? To emphasise it was Scotland and not Saudi it bucketed rain, but briefly, and the evening saw us bound for the hills under blue skies. This stage of the trip home was to be the climax. 'We'll do a couple of Munros, Dad'. (A Munro is a mountain over 3,000 feet and Scotland boasts 277.) 'Nice wee hike to the bothy: good sleep and a day in the hills'.

We were three doctors and a male nurse; none strangers to our mountains and all enthusiasts which was just as well, twelve cans of McEwans and 25 kg of coal doing nothing to lighten our collective burdens, but considered essential, and a wee dram forbye. The estimated three-hour nice hike stretched to five hard