JOHN ALFRED POWELL MA, DPhil(Oxon), CEng, CIMgt, FIEE, SMIEE, FBIM, FRSA

John Powell, physicist and company director, died on 31 December 1996, aged 73. He was born on November 4, 1923. His career followed an unusual course: from a base of research in the field of crystal technology for solid state devices in the UK at Oxford and in Canada, he had by the age of 40, and after only six years with Texas Instruments, risen from senior production engineer to become Managing Director (Northern Europe), then employing 3000 people. Three years later, he became the first non-US citizen to be appointed a Corporate Officer and Assistant Vice President of the parent company in Dallas. His subsequent working life was spent with EMI, from which he retired as a Deputy Chairman in 1979. It was in this period that he managed the development and launch world-wide of the EMI brain scanner, the revolutionary CT scanner invented by EMI's Godfrey Hounsfield (later Sir Godfrey and a Nobel Prize-winner).

Powell was born in Islip, near Oxford. From the tiny village school he won a scholarship to Bicester County School, where he excelled; enjoying, particularly, design and handicrafts. In 1939, he became an Aircraft Apprentice in instrumentation at RAF Halton. Two years later he was posted to an operational training unit but his RAF career came to an abrupt end when, as a member of the test crew of a Wellington bomber, he was injured and invalided out.

He obtained work at the Clarendon Laboratory at Oxford University and studied in the evenings to gain entrance to Queen's College where he gained an Honours Degree in Natural Sciences. He returned to the Clarendon to undertake post-graduate research which won him his Doctorate. In 1952, he took a Post-Doctorate Research Fellowship at the National Research Council in Ottawa, Canada. Two years later he returned to the UK and joined the Marconi Research Laboratories at Chelmsford as a Section Leader in semi-conductor research and development.

It was in 1957 that he Joined Texas Instruments at Bedford as a senior product engineer, where he developed a process to produce germanium crystals for transistors at less than one fifth of the previous cost, much to the admiration of his US parent company who installed an immense battery of such machines in Dallas. Rapid promotion ensued and by 1963 he had become Assistant Managing Director (Northern Europe) and by 1968 a Vice-President.

In the next few years he was much in demand with international headhunters but conceived a wish to devote what he had to offer to a British company, not only for patriotic reasons but also in recognition of what he believed he owed this country for the early education and training he received here. Accordingly, he accepted an offer to join EMI as Group Technical Director.

Powell was a British scientist but with American attitudes, with a somewhat aggressive style of management (at least, as measured against standards prevailing in the UK at the time) imprinted by his fourteen year career with TI. His remit was somewhat ambiguous but it started with a technical audit of what he discovered to be a kaleidoscopic pattern of commercial electronics activity - outside the established mainstream defence electronics business - but with a wealth of ingenuity that seemed to him to lack the systematic focus and drive to which he had become accustomed. He paid tribute to the many centres of technical excellence which he found, including the Central Research Laboratory which had an impressive record of innovation.

The most promising piece of innovation then available was the EMI brain scanner which, having been funded in part by the DHSS, was undergoing successful clinical trials. This was an embryo product of unknown potential in a market in which EMI had no presence and no experience. Hindsight reveals that it represented the greatest advance in medical diagnostics since Roentgen discovered X-rays 75 years earlier. The patent position was thought to be strong and the possibility of licensing was discussed. However, having assumed executive responsibility in the Commercial Electronics area and with the benefit of his experience in marketing innovative products in TI, Powell decided that EMI should create a new business. In five years, despite assuming wider responsibilities in the Group, he directed the effort which resulted in the manufacture and sale of over 700 scanners worldwide, selling at a peak rate £100M per annum, generating some £38M of profit for the company. From virtually a nil base, EMI Medical Electronics had grown to employ 2,500 people and were represented in over a dozen countries.

In 1972 Powell was appointed a Director of Nuclear Enterprises Ltd, Edinburgh, a company co-founded by the late Dr R W Pringle FRSE. In 1976, NE was acquired by EMI Ltd and Powell was appointed Chairman.

Powell became Deputy Managing Director of the EMI Group in 1973 and Group Managing Director in 1974. The same five year period was also rewarding for EMI as a whole with group sales and operating profits increasing by over three times. However, Powell's executive influence in the wider sphere was principally in Europe and, in electronics, worldwide.

For over three years, somewhat longer than originally expected, EMI enjoyed 100% of the world market, and by this time were selling a body scanner as well. In the following two years, with the entry of competition, market share dropped but sales and profits continued to increase until, in each of the two years 1978 and 1979, the scanner business lost £13 million. The principal contributing factors to the reverse were US Governmental restrictions on the installation by hospitals of expensive equipment, and two years' delay by the US manufacturing base which had been set up to develop and deliver the second generation body scanner. The untimely death of a key executive exacerbated the problems in the USA. The medical electronics business was sold by THORN EMI shortly after the take over of EMI at the end of 1979, but EMI's patents were retained. All outstanding infringement suits were finally settled: substantial royalties continue to accrue to the United Kingdom.

In 1978 Powell was elected a Fellow of the Royal Society of Edinburgh and in 1978-79 he presented the 50th in the series of Faraday Lectures. The subject was 'The Diagnostic Electron' and the lecture tour took in 15 cities and a combined audience of over 70,000.

He was active in professional circles and, during his time with Texas Instruments, served as Chairman of the VASCA (Semi-Conductor) Trade Association. He was a sometime member of the Electronics Components Board and the prestigious Electronics Research Council. He served on the Finniston Committee of Inquiry into the Engineering Profession; he was a member of the Honeywell Advisory Council, and of the Physical Sciences sub-committee or the University Grants Committee. In 1980, together with Sir Godfrey Hounsfield. he was elected an Honorary Member of the British Institute of

Radiology. In 1985 he became a Trustee of the Radiological Research Trust and made an active contribution as Chairman until his retirement because of ill health in 1994.

Many of these activities were initiated or continued after his retirement in Poole, which was active and happy; he particularly enjoyed the beautiful garden which he created there and took up and grew to love the game of golf and the friends and companionship which it provided. A man of some physical stature, a gentle man, a serious man, yet a man with a great sense of fun and an infectious laugh. He bore his maladies in recent years with great fortitude; he will be deeply missed by his friends, by Zena whom he married in 1949, and by Garth and Ashley, his children.

PETER HAYMAN