

# *B H I* *orological Journal*

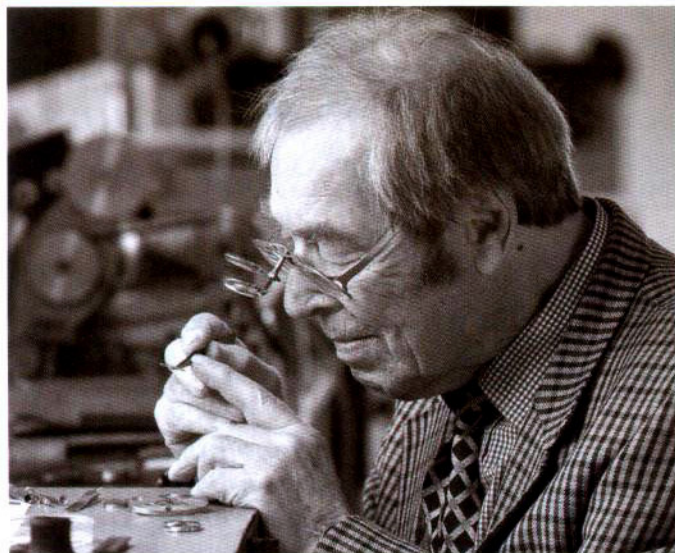


*December 2011*



*Merry Christmas and a Happy New Year*

## Dr George Daniels CBE FBHI 1926 - 2011



George Daniels, who has died aged 85, was considered by some to be the greatest watchmaker since Abraham Louis Breguet (1747–1823), and was credited with preventing a battery powered quartz takeover by showing that a mechanical watch can perform as well as an electronic one.

His greatest contribution was to develop a watch mechanism, known as the Co-Axial escapement, which has helped to revolutionise the performance of high end mechanical watches and has been described as the most important horological development for 250 years.

When Daniels first started making watches, he was aware that the traditional lever escapement (the part of a watch that regulates its timekeeping) suffered from a fundamental design flaw. The problem, which had perplexed watchmakers for centuries, was its need for lubrication to facilitate the sliding of the pallet stones over the teeth of the escape wheel. This resulted in a change in performance over time as the oil degraded, the effect being, in Daniels' words, 'a bit like driving uphill with the handbrake on'.

Daniels's Co-Axial escapement, a deceptively simple-looking arrangement of cogs and levers, virtually eliminated the need for lubrication by significantly reducing sliding friction, thus ensuring greater accuracy over time and reducing the need for servicing.

Yet when he first unveiled the concept in 1976, he faced scepticism from the industry, before the Swatch Group's chairman Nicolas Hayek adopted the idea in the 1980s. Hayek



George with Nicolas Hayek.

took on the project for Swatch's Omega brand, and in 1999 the company unveiled its first mechanical watch featuring Daniels' Co-Axial design at the Basel Watch and Jewellery Fair. The event was hailed as heralding a new era in mechanical watchmaking.

In an encyclopedia of Arts and Sciences published in 1819 Abraham Rees claimed that it took 34 people to make a watch, and observed that they must all be highly skilled and have served lengthy apprenticeships. Daniels, however, mastered the work of so many of these crafts that he was able to create every part of his watches himself, except for the springs and the glass.

From 1968, when he began to build his first timepiece, a gold and silver one minute pivoted detent chronometer tourbillon (which sold recently at an auction in the United States for \$285,000), he specialised in making watches for connoisseurs and collectors, featuring cases, dials and movements which were instantly recognisable as his designs, and incorporated unusual features to appeal to collectors.

Before long, eager buyers were clamouring for Daniels' timepieces, which became much sought after collectors' items, fetching prices in excess of £100,000.

In 2006, to celebrate his work and his 80th birthday, Sotheby's and Bobinet (the antique watch dealer) held a retrospective exhibition of his work, featuring every watch Daniels had made, save one.

One of 11 children, George Daniels was born in Edgware, north London, on 19 August 1926 and had a difficult upbringing. His father, a carpenter, was a violent drunk and the family struggled



The Retrospective Exhibition at Sothebys as reported in HJ.



**As a Vice President of the BHI, George delivered a keynote address at the Institute's 150th Anniversary celebration in 2008.**

for money. When George asked his parents about his birth, he was met with abuse, later learning, on applying for a passport, that not only was he illegitimate, he had no birth certificate. He became fascinated by watches as a child when, aged five, he found a cheap wristwatch in the street. 'I managed to get it open and I was intrigued with the workings,' he recalled. 'It was like seeing the centre of the universe. I knew that's what I wanted to do; I wanted to spend the rest of my time with watches.'

Forced to seek work at the age of 14, Daniels began working in a mattress factory, reading everything he could about watches in his spare time. He soon turned this knowledge into cash by repairing clocks, seeking orders by going from door to door.

During the Second World War he served in the Army, and in 1945 was posted to the 2nd Battalion the East Yorkshire Regiment in the Middle East. There he earned enough money mending fellow soldiers' watches not to have to draw any pay. Back in England, Daniels started work with a watchmaker in Edgware, attending evening classes in horology at Northampton Polytechnic (now City University, London). He then set up on his own as a watch cleaner and repairer.

Initially he repaired watches in order to finance his love of vintage cars. However, a chance meeting in 1960 with Sam Clutton, a founder member of the Antiquarian Horological Society and the Vintage Sports Car Club in Britain, introduced him to upmarket and antique horology. Clutton collaborated on Daniels' first book *Watches* (1965), and introduced him to the work of Breguet. Daniels became such an expert on the French horologist that he subsequently restored many Breguet watches, and in 1967 was invited to take over the Breguet company; he declined the offer, reasoning that 'Daniels, London' sounded better to him than 'Breguet, Paris'. His book *The Art of Breguet* was published in 1975.

In 1969 Daniels had produced his first mechanical watch. He sold the piece to Clutton, who showed it to other collectors, and Daniels embarked on his career as a specialist watchmaker. Each watch typically involved 2,500 hours of work over a year or more, and he refused to take orders, being particular about his customers: 'I was very selective,' Daniels recalled. 'I never made watches for people if I didn't care for them.'



**George displays two of his watches.**

Daniels claimed that there was little money to be made in watchmaking, but his lifestyle suggested otherwise. In 1982 he moved, for tax reasons, to the Isle of Man, where he bought a substantial Georgian house complete with tradesmen's entrance and sweeping drive. There he established a collection of vintage motorcycles and cars, including a 1907 Daimler built for the Earl of Craven. For many years he took part in vintage car races until being 'warned off' by the RAC on grounds of age. George Daniels was awarded the Gold Medal of the Worshipful Company of Clockmakers; the Gold Medal of the British Horological Institute; the Gold Medal of the City of London; and the Kullberg Medal of the Stockholm Watchmakers' Guild.

His other books include *English and American Watches* (1967); *The Practical Watch Escapement* (1995, second edition 1997), a guide to the various types of watch escapements for aspiring watchmakers; *Watchmaking* (1981, second edition 1985); and an autobiography, *All in Good Time – Reflections of a Watchmaker*, published in 2000.

George Daniels, who became horological consultant to Sotheby's in 1970, was appointed MBE in 1981 and CBE in 2010.

He married, in 1964, Juliet Marryat, with whom he had a daughter. The marriage was later dissolved.

**George Daniels, born August 19 1926, died October 21 2011**

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**The January 2012 edition of Horological Journal will feature tributes to Dr Daniels.**