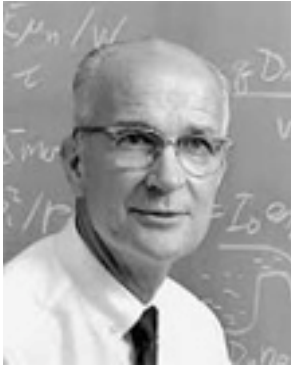


William Bradford Shockley

Born February 13, 1910, London, UK- died 1989, Santa Clara, Calif.; with Walter Brattain and John Bardeen, inventor of the transistor in 1947, the 1956 Nobel laureate.



Education: BS, physics, California Institute of Technology, 1932; PhD, physics, MIT, 1936.

Professional Experience: Bell Telephone Laboratories: member, Technical Staff, 1936-1942 and 1945-1954, director, Transistor Physics Research Facility, 1954; director of research, Antisubmarine Warfare Operations Research Group, US Navy, 1942-1944; founder, Shockley Semiconductor Laboratory, 1954-1989; Stanford University: lecturer, 1958-1963, Alexander M. Poniatoff Professor of Engineering Science and Applied Science, 1963-1975, professor emeritus, 1975-1989.

Honors and Awards: Nobel Prize in physics,¹ 1956.

Co-inventor of the transistor in 1947 with John Bardeen and Walter Brattian, Shockley participated in one of the most important discoveries of the century. They applied for a patent in 1948; this device was described as a germanium “transfer resistance” unit, from which the name “transistor” was derived. Shockley continued his research on the device to create the germanium junction transfer transistor, which was much more reliable than the first unit. From this start he founded Shockley Semiconductor Laboratories in Santa Clara Valley in 1954. After he received the Nobel Prize in 1956, disenchantment with Shockley's management style and his propensity for pure research led to the defection of the “Fairchild Eight” in 1957, and the deterioration of his company. His controversial views on genetics and his racist theories have shocked the society around him, but he has continued his research into “grave world problems.”

QUOTATION

“The only heritage I can leave to Billy is the feeling of power and joy of responsibility for setting the world right on something.” (Shockley's mother, about her 8-year-old son)

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¹ Jointly with John Bardeen and Walter H. Brattain.

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Slater, Robert, *Portraits in Silicon*, MIT Press, Cambridge, Mass., 1987.

Significant Publications

Bardeen, John, Walter Brattain, and William Shockley, *Nobel Lectures-Physics*, Elsevier, New York, 1964.

Shockley, William, *Electrons and Holes in Semiconductors, With Applications to Transistor Electronics*, Van Nostrand, New York, 1950.

UPDATES

Portrait added (MRW, 2013)