



Hermann Ludwig
Ferdinand von Helmholtz
1821-1894

The man many think was responsible for Thevenin's theorem, considered in this chapter, was Hermann Ludwig Ferdinand von Helmholtz, a physicist, physician, physiologist, and Germany's greatest scientist of the nineteenth century. He helped prove the law of conservation of energy, invented the ophthalmoscope, constructed a generalized form of electrodynamics, and foresaw the atomic structure of electricity. His anticipation of the existence of radio waves was later proven when they were discovered by one of his students, Heinrich Hertz.

Helmholtz was born in Potsdam, Germany, the oldest of six children of August Helmholtz and Caroline Penne Helmholtz, a descendant of William Penn, the founder of Pennsylvania. He served 8 years as an army doctor to pay his obligations for his medical scholarship during his student years at the Friedrich Wilhelm Institute. His main interest, however, was physics, in which he gained his greatest fame. His 70th birthday was an occasion for nationwide celebrations in Germany. Three years later he died, having raised German science to the great heights to which his famous contemporary, Otto von Bismarck, had raised the German nation.

(Source: D. Johnson, J. Johnson and J. Hilborn, *Electric Circuit Analysis*, Prentice-Hall, 1989)