

1015-01-5

Karen V. H. Parshall* (khp3k@virginia.edu), Departments of History and Mathematics,
University of Virginia, P. O. Box 400137, Charlottesville, VA 22904-4137. *The British Development
of the Theory of Invariants, 1841-1895.*

The two main British exponents of the theory of invariants, Arthur Cayley and James Joseph Sylvester, first encountered the idea of an "invariant" in an 1841 paper by George Boole. In the 1850s, Cayley, Sylvester, and the Irish mathematician, George Salmon, formulated the basic concepts, developed the key techniques, and set the research agenda for the field. As Cayley and Sylvester continued to extend the theory off and on through the 1880s, first Salmon in 1859 and later Edwin Bailey Elliott in 1895 codified it in high-level textbooks. This talk will sketch the development of nineteenth-century invariant theory in British hands against a backdrop of personal, nationalistic, and internationalistic mathematical goals. (Received September 02, 2005)