After witnessing how an array of cannons can “batter” a shoreline, Ben Franklin had coined the term “battery” for devices that he joined in series to electrically shock himself. Before the dry-cell batteries of today, there were wet-cell batteries favored by Thomas Edison, ones pioneered by France’s Grenet. The Frenchman’s device capped a bulbous bottle of aqueous solution (potassium dichromate and sulfuric acid) with two carbon-strip electrodes, and a “submersible” zinc electrode. Note how London’s T. J. Robinson had attached the nonbulbous “American form” of the Frenchman’s bottle to a forerunner of today’s transformers. His resulting “Improved Induction Coil and Battery” (pictured here) featured a Primary coil (P) of hundreds of turns of wire and a Secondary one (S) with thousands of turns. Direct current emerging as low voltage from the Grenet cell was transformed into bursts of high voltage used for entertainment and therapeutic value. Distributed by West London’s J. H. Montague in 1897, the “conductor covered with sponge” was designed to stimulate “the Phrenic nerve in cases of accident from Chloroform....” (Copyright © the American Society of Anesthesiologists, Inc. This image appears in the Anesthesiology Reflections online collection available at www.anesthesiology.org.)

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