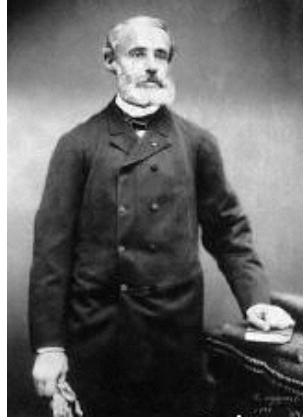


Who is Gaston Planté ?

Gaston Planté



Born	22 Apr 1834 Orthez
Died	21 May 1889 Bellevue ^[<i>disambiguation needed</i>]
Nationality	French
Fields	physics
Known for	lead-acid battery

Gaston Planté (1834-1889) was the [French physicist](#) who invented the [lead-acid battery](#) in 1859. The lead-acid battery eventually became the first [rechargeable electric battery](#) marketed for commercial use.

Planté was born on [April 22, 1834](#), in Orthez, France. In 1854, he began work as an assistant lecturer in [physics](#) at the [Conservatory of Arts and Crafts](#) in [Paris](#), and in 1860, rose to the post of Professor of Physics at the Polytechnic Association for the Development of Popular Instruction. An amphitheatre at that institute is named after him.

In 1855, he discovered the first fossils of the prehistoric flightless bird [Gastornis parisiensis](#) (named after him) near [Paris](#). This gigantic animal was a very close relative of the famous diatrymas of North America. At that time, Planté was at the start of his academic career, being just a teaching assistant to [A. E. Becquerel](#) (father of the [Nobel laureate Henri Becquerel](#))^[1]. Thus, this early discovery—despite causing considerable furor in 1855—was soon to be overshadowed by Planté's subsequent discoveries. (Over)

[Lead-acid battery

Gaston Plante

In 1859, he invented the [lead-acid cell](#), the first rechargeable battery. His early model consisted of a spiral roll of two sheets of pure lead separated by a linen cloth, immersed in a glass jar of sulfuric-acid solution^[2]. The following year, he presented a nine-cell lead-acid battery to the Academy of Sciences. In 1881, [Camille Alphonse Faure](#) would develop a more efficient and reliable model that saw great success in early [electric cars](#).

Planté also investigated the differences between [static electricity](#) and dynamic electricity (i.e., from batteries). As part of this investigation, Planté invented a mechanical device that he called the Rheostatic Machine. The Rheostatic Machine used a bank of mica capacitors, a clever rotating commutator and a series of contacts to alternately charge a bank of [capacitors](#) in parallel (from a high-voltage battery source) and then connect the capacitors in series. This arrangement multiplied the battery voltage by the number of capacitor stages to obtain very high voltages. By rapidly rotating the shaft, a series of high-voltage sparks many centimeters long could be generated rapidly. This device was a mechanical predecessor of the modern-day [Marx generator](#). Using this device, Planté explored the [electrical breakdown](#) of air, the formation of [Lichtenberg figures](#), and the behavior of thin wires when pulsed by high [electric currents](#).

He died on [May 21, 1889](#), in Bellevue, near Paris. In 1989, the Bulgarian Academy of Sciences established the Gaston Planté Medal, which is awarded every few years to scientists who have made significant contributions to the development of lead-acid battery technology.



401 North Michigan Avenue, Chicago, IL 60611 USA

312-644-6610, Fax: 312-527-6640

Email: info@batteryCouncil.org, www.batteryCouncil.org