## Charles F. Brush (A'84, M'84, member for life)

## Honorary Memder 1929 Edison Medalist 1913

OVER a period of almost 60 years of activity, Charles Francis Brush was in the forefront as a pioneer in electrical de velopment. He was born at Euclid, Ohio March 17, 1849. While still at school, h became intensely interested in electrical apparatus. In 1869 he graduated in minin engineering from the University of Michi gan, later securing the degree of M.S. at thi university, followed by a Ph.D. from th Western Reserve University, Cleveland One of the first to realize the value of th work of Gramme, in 1876, he designed an built a dynamo. The following year he in troduced the compound field winding for ob taining constant voltage. It was at an ex hibit in 1878 that he displayed the earlies form of what afterward became the world famous Brush are light machine. His, too was the invention of the differential ar lamp, which made it possible to operat lamps in series, and of many other device In 1881 the Brush Electric Company wa