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Elisha Graves Otis

Born August 3, 1811 - Died April 8, 1861

Improvement in Hoisting Apparatus

Patent No. 31,128

Inducted 1988

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Elisha Graves Otis didn't invent the elevator, he invented something perhaps more important-the elevator brake-which made skyscrapers a practical reality. Born on a farm near Halifax, Vermont, the youngest of six children, Otis made several attempts at establishing businesses in his early years. However, chronically poor health led to continual financial woes. Finally, in 1845, he tried to change his luck with a move to Albany, New York. There he worked as a master mechanic in the bedstead factory of O. Tingley & Company. He remained about three years and during that time invented and put into use a railway safety brake, which could be controlled by the engineer, and ingenious devices to run rails for four-poster beds and to improve the operation of turbine wheels. By 1852 he had moved to Yonkers, New York, to organize and install machinery for the bedstead firm of Maize & Burns, which was expanding. Josiah Maize needed a hoist to lift heavy equipment to the upper floor. Although hoists were not new, Otis' inventive nature had been piqued because of the equipment's safety problem. If one could just devise a machine that wouldn't fall.... He hit upon the answer, a tough, steel wagon spring meshing with a ratchet. If the rope gave way, the spring would catch and hold. In 1854 Otis dramatized his safety device on the floor of the Crystal Palace Exposition in New York. With a large audience on hand, the inventor ascended in an elevator cradled in an open-sided shaft. Halfway up, he had the hoisting cable cut with an axe. The platform held fast and the elevator industry was on its way. Otis had no way of knowing that this simple safety device was to alter the face of the globe, that because of it vast cities would spring up toward the sky instead of spreading toward the horizon as in the past.

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