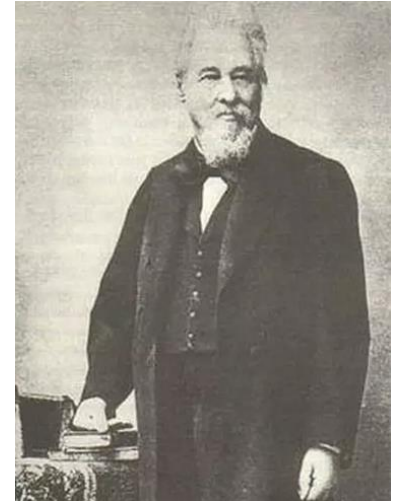


Norbert Rillieux

Norbert Rillieux (1806–1894) was a Creole inventor from New Orleans. He studied in Paris, France, before returning to the U.S.

Rillieux's father was the owner of a large plantation, where sugar was often grown. He invented the multiple-effect vacuum evaporator for refining sugar. His invention produced a whiter, more refined sugar with less labor. Rillieux's refining process was eventually extended to all evaporating processes—including condensed milk, gelatin, soap, glue, and whiskey.



Cookies, cakes, cupcakes — we go through tons of sugar every day. Inventor and engineer, **Norbert Rillieux** developed a [method for refining sugar](#) into crystallized granules, he patented in 1843. This made processing sugar more efficient and safer, enabling the United States to dominate the world market.

Rillieux was born into an upper-class Creole family in New Orleans. His mother was placée, Constance Vivant, a free person of color. As a Creole, Norbert had access to education and privileges not available to lower-status blacks or slaves.

Before his invention, sugar was an expensive luxury, used only on special occasions. The process used to make sugar, known as the Jamaica Train, was a slow, dangerous, and expensive task, usually performed by slaves. They would work over open, boiling kettles, ladling sugarcane juice from one container to another. A large number of workers were scalded to death and others received terrible burns. The final product of this process was a dark thick syrupy substance, resembling caramel rather than the granulated form known today. The syrupy sugar was poured into cones to dry and was bought and sold in this condition.

Rillieux had begun developing a method for refining sugar into crystallized granules between 1834 and 1843, when he patented it. The concept for Rillieux's evaporation process is a multiple-effect operation in which a series of vacuum pans heat one another in sequence, thus controlling the overall temperature and producing the desired crystallized form. The importance of Rillieux's invention to the American sugar-making industry cannot be overstated.

His evaporation process made it possible for the United States to dominate the world market and this process is still used for things like freeze-drying food, pigments, and other industrial products.

In 1881, at the age of 75, Rillieux made one last foray into sugar evaporation, devising a way to use his multiple effect evaporation system to extract sugar from sugar beets. Rillieux's process fixed the errors in the previous process, but Rillieux lost the rights to the patent he had filed.

Norbert Rillieux died in poverty on October 8, 1894 at the age of 88. He is buried in Paris.