

PROF. CURIE KILLED IN A PARIS STREET

The Discoverer of Radium Run Over by a Wagon.

EXPERIMENTED MANY YEARS

Success Followed Early Hardship— Curie Was Greatly Aided by Mme. Curie.

PARIS, April 19.—Prof. Curie, the discoverer of radium, was run over and killed by a wagon on the Place Dauphine this afternoon.

Ever since the discovery of radium by Prof. Curie and his wife they had devoted their energies to further researches on the same lines and to the manufacture of the wonderful element they had found. It was in 1899 that radium was discovered. Two years afterward the French Academy of Sciences awarded the La Caze Prize of 10,000 francs to Prof. and Mme. Curie, and soon afterward the Curies produced a minute quantity of pure radium. In December, 1903, the Nobel Prize for chemistry was awarded to them, and a few weeks afterward they received 60,000 francs, part of the French Osiris Prize, in recognition of their services to science.

These rewards were the result of a series of efforts entailing the greatest self-sacrifice and the most sustained labor. Pierre Curie was born in Paris on May 15, 1859. He was the son of a physician, and early showed his bent for scientific research. He was educated at the Sorbonne, and when only 20 years old began chemical experimentation on his own account. In his researches he was aided by Marie Sklodowska, a Pole, who was born at Warsaw, in 1868, and who after studying chemistry and physics there went to Paris to continue her work.

Curie became a professor in the School of Physics and Chemistry at Paris in 1895, and about the same time married Mlle. Sklodowska, who had already attracted considerable attention by her contributions to scientific publications.

The couple, both entirely devoted to science, passed through many hardships together. Neither had any fortune, and with the few thousand francs which they earned it was by no means easy to make both ends meet. They took a house in the suburb of Paris called Bourg-la-Reine, a couple of miles from the walls of the city, and it is related of them that, in order to save carfare, they each day made the journey from their home to their laboratory, in the Rue Lhomond, on bicycles.

It was in the little laboratory in the Rue Lhomond that the experiments which resulted in the discovery that has already revolutionized chemistry, and which may revolutionize the practice of medicine, were conducted. The Curies began by studying the magnetic properties of steel, but in a little while the study of the conductivity of air under the influence of the rays of uranium and thorium led them to the path which ended in the finding of radium.

To attempt to outline the experiments which resulted in the discovery would be impossible in limited space, but the upshot of these experiments was a communication to the Academy of Sciences in 1898, in which the Curies positively confirmed what they had previously announced as a probability—the presence of a new and strongly radio-active substance contained in pitchblende. They first found a new element which they called polonium, and afterward discovered an element having the chemical appearance of nearly pure barium, but showing quite different characteristics. This element was radium.

The efforts of the Curies recently had been directed toward cheapening the cost of radium, its expensiveness being at present the chief obstacle to more general experiments with it and its use in medical practice. It takes 5,000 tons of uranium residues to produce 1 kilo (2.2 pounds) of radium, and the cost of handling these residues is \$2,000 a ton. It would be impossible to obtain pure radium by chemical analysis, and the far more sensitive electrical method is employed. Prof. Curie said he could detect the presence of a radio-active substance in such a minute quantity that it would require 5,000 times the amount to show it on the spectroscope.

The professor was frequently forced to delay his tests for three or four hours, by reason of the fact that he had been exposed to radium and that his clothes had become so radio-active as to prevent him from going near his instruments. The Curies' laboratory became so thoroughly impregnated with radium that they had to move into another place for their experiments. Both the professor and his wife recently became ill through the effects of radium.

Prof. Curie in 1904 refused the decoration of the Legion of Honor. "I am of the opinion," he said, "that the hope of receiving decorations is not necessary as an inducement to acts of devotion or courage."

Prof. Curie leaves one child, a daughter 9 years old.