ONE HUNDRED YEARS OF MENDEL'S LAWS

Otto Mather

Johann Gregor Mendel was born in 1822 in Heinzendorf. His father was a farmer, and the young Mendel was originally designated to take over the property ultimately. Already in elementary school, however, he revealed a marked mental alertness. He finally went to the Gymnasium, where he displayed his gifts in the linguistic-philosophical and mathematical-natural sciences. In spite of financial distress and illness, he graduated from the Gymnasium in Troppau in 1840 and then entered the Augustinian Order. After completing his philosophical-theological studies, he was ordained a priest. Mendel later studied natural science at the University of Vienna, and after twice having failed to pass the state examination, he became a part-time teacher at a *Realschule,* where he distinguished himself as an outstanding pedagogue.

In addition to teaching, Mendel devoted himself above all to his experiments, in which he used garden peas as experimental plants. He applied the experimental methods of physics and chemistry. Because of his conviction that the laws of heredity were necessarily a question of numerical relationships, the quantity of experimental plants and the number of trials had to be as large as possible. After years of experimentation which required tremendous energy and stubborn persistence, he was finally able to demonstrate the existence of a law of heredity in 1865. The fact that the scientists of his time refused to recognize his achievement was a bitter disappointment to him.

With his election as abbot of his monastery, the scope of Mendel's activity broadened not only in the religious sphere but also in the secular field, which meant that administrative work absorbed much of his time and energy. Failing eyesight soon prevented him from experimenting further, and his generally weak state of health was ruined completely by the fight over monastery taxes. He died in 1884.

Mendel was the founder of classical genetics, but his work was rediscovered and its fundamental significance recognized only at the turn of the century by de Vries, Correns and Tschermak.