HENRI SAINTE-CLAIRE DEVILLE (1818–1881)

Henri Sainte-Claire Deville was born on March 11, 1818 on the island of Saint Thomas in the Antilles where his father was French consul. Both he and his older brother Charles, the geologist, were educated at Paris. He first studied medicine and took courses in chemistry at the Sorbonne under Thénard. His predelection for chemistry was soon demonstrated, and as early as 1839 he published his first paper on turpentine. This was followed, two years later, by another article, on Tolu balsam in which he had discovered the presence of toluene. Through the influence of Thénard, Deville at the age of twenty-six, was made dean of the newly organized faculty of Besancon. In addition to his official duties, Deville undertook the examination of the potable waters of the region around Besancon and recognized, for the first time, the presence of nitrates in the water supply. In 1851 he was recalled to Paris where he became professor at the Sorbonne and director of the laboratory of the École Normale Supérieure. Here he conducted his celebrated researches on the large-scale production of sodium and aluminium (1854). It is stated by A. Letellier that the first ingot of aluminium was actually cast at the palace "La Damette" at Irigny where a number of noted chemists used to meet and perform experiments at the invitation of the owner, a silk manufacturer of Lyon. Deville's work on gaseous dissociation started about 1857 with a publication entitled "The Dissociation and Spontaneous Decomposition of Substances by Heat." His experiments on the dissociation of carbon dioxide were performed by means of a cold-warm tube in which the dissociated gases were removed through a small orifice in a silver tube in which a stream of cold water was maintained. This work was carried out first alone and later in cooperation with his pupil and "faithful interpreter" (according to Duhem) Henri Debray.

His most famous student and, after Moissan's death, his distant successor, was Le Chatelier who has left us a vivid picture of his teacher in the preface to his book, "Lecons sur le Carbone," published in 1908. Small of stature, vivacious in his speech, with rapid movements, Deville delighted his hearers at the Sorbonne with his anecdotic stories of the dog and the bone, the black phosphorus, and similar amusing tales. The absence of factual knowledge in Deville's lectures was at first keenly felt as a distinct disadvantage and yet, by stimulating the imagination of the audience, so Le Chatelier says, Deville made his students think for themselves, which—after all—is the main purpose of all oral instruction. Coming from one so renowned who owed his intellectual formation to Deville, this statement leaves us with the impression that Deville was not only a great scientist but also a most successful teacher.

(*Contributed by H. S. Van Klooster, Rensselaer Polytechnic Institute*)