

BERZELIUS, a complete blowpipe examination of all known minerals; but his death, in 1818, occurred almost at the commencement of this undertaking. BERZELIUS therefore carried on the investigation alone; and the results, together with all the improvements and new processes introduced by Gahn and by himself, were published at Stockholm under the title of *Afhandling om Blasrorets användande i Chemien*, in 1820. This work has formed the basis of almost all that has subsequently been published on the use of the Blowpipe in qualitative researches, although many new tests and methods of investigation have been discovered since its date. At the death of its distinguished author in 1853 it had entered its fourth edition, and had been translated into all the leading European languages. An English translation (taken however from a French version) by CHILDREN, appeared in 1821; and another by Whitney (from the fourth German edition by HEINRICH ROSE) was published at Boston, United States, in 1845.

A new era of blowpipe investigation commenced in 1827, when EDUARD HARKORT, of Freiberg in Saxony, applied the instrument to the assaying or quantitative examination of silver ores. HARKORT left Germany for Mexico, and died there, soon after the publication of his essay on this subject (*Probirkunst mit dem Löthrohre, Freiberg, 1827*); but CARL FRIEDRICH PLATTNER, to whom he had shewn his method of working, carried on this important application of the blowpipe, and published elaborate memoirs on the assaying, by this method, of gold, lead, copper, tin, nickel, and other metallic ores and furnace products. His great work on the Blowpipe, bearing a similar title to HARKORT'S earlier publication, appeared in 1835. It reached a third edition in 1853; and since Plattner's death in 1858, two other editions (the last in 1878) have been issued under the editorship of DR. THEODOR RICHTER, Plattner's successor in the Freiberg Mining Academy. This work has been translated into various languages. An American edition, by PROF. H. B. CORNWALL, appeared in 1875.

Of late years, the use of the Blowpipe has been greatly extended; and numerous original memoirs on points relating to Blowpipe Practice and Analysis have appeared from time to time in scientific journals. But the discussion of these more modern investigations belongs properly to a future time. The principal works published since the date of Plattner's treatise are mentioned at page 21 of the present volume. To these must be added the *Systematic Course of Analysis* of J. LANDAUER, referred to in the preceding note.

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