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Platinum in Early Instrumentation

The History and Preservation of Chemical Instrumentation

EDITED BY JOHN T. STOCK AND MARY VIRGINIA ORNA, Reidel, Dordrecht, 1986, 268 pages, Dfl.125.00/£39.75

An unusual and intriguing compilation of papers presented to the History of Chemistry Symposium of the American Chemical Society in September 1985, this publication first emphasises the importance of instruments in chemical industry as well as in the laboratory. The eighteen papers, only two of which have to do with platinum, then deal with instruments ranging from the very simple and oldest—blowpipe analysis—all the way to the most modern, even robotics. In the former case a long paper by W. B. Jensen of Rochester, New York, rightly describes Johan Gottlieb Gahn as the supreme master of blowpipe analysis and refers to his introduction of platinum wire to replace a gold or silver spoon at a time when platinum was only just becoming available. One of the most fascinating contributions comes from John Burnett, then of the Science Museum, London, but now with the Royal Scottish Museum, on "The Use of New Materials in the Manufacture of Scientific Instruments, c. 1800–c. 1920". Among many metals and alloys developed or used for specific purposes, the author mentions Seebeck's discovery of thermoelectricity in 1821, this leading gradually on to the introduction of the platinum : rhodium-platinum thermocouple by Henri Le Chatelier just a hundred years ago. The first attempt to make a platinum resistance thermometer was made by Sir William Siemens in 1871, but its successful use had to await the researches of Hugh Longbourne Callendar in the Cavendish Laboratory in the 1880s.

The other papers discuss a wide range of instruments, and the volume forms a tribute to the skill and ingenuity of instrument makers past and present. L.B.H.