period. The name molybdenum for many centuries, therefore, pertained to graphite and molybdenite which were considered identical.

It is interesting to note how these two were finally distinguished. By the action of nitric acid upon molybdenite, Scheele, in 1778, three years before his work on tungsten, showed that there were formed sulphuric acid and a white acidic earthy substance which we term molybdic acid to-day. In 1779, Scheele firmly established the difference between the two minerals, theretofore confused, in another treaty on plumbago. In the Phlogiston way, the earth was considered the calx of a metal, and on this theory, in 1790, facts were made known regarding the first preparation of the metal by Hjelm, who, prompted by the current belief that carbon was rich in phlogiston, ignited the acid oxide of Scheele in a graphite crucible with carbon. The resulting gray metal must have contained considerable carbon. That process is commercially used to-day.

Until recent years, the metal was in little demand for industrial purposes, and very little search was made for the ores of molybdenum. At the present time, however, owing to its introduction into metallurgy, in the form of iron molybdenum alloys, there is a considerable demand for such ores. They are produced, however, very irregularly and in small quantities. If a larger and more regular ore supply were assured, there is no doubt that new uses would be found for the metal, its alloys and salts, and the demand for the ores would increase.

PROPERTIES AND USES.

Physical and Chemical Properties of Molybdenum: Pure molybdenum is a white metal, which is malleable, ductile, and soft enough to be filed and polished with ease. However, it is seldom produced in the pure state, and its appearance depends largely upon the method of production. Reduction of the oxides or sulphides of molybdenum with hydrogen yields molybdenum as a grey powder, which, under heat and pressure, may be compacted into a metallic bar that is brittle and even fragile. Molybdenum produced by the Alumino Thermic methods or by reduction in the electric furnace is a compact metal, but that produced in the electric furnace contains carbon, and its physical properties differ from those of carbon-free metal. The melting point of molybdenum is still in question. The United States Bureau of Standards has placed it at about 2,500° C., or 4,500° F. This is about 1,400° C., above the melting point of copper, and 740° C., above that of platinum. Osmium, tantalum and tungsten are the only three metals listed by the Bureau of Standards as having higher melting points. The specific gravity of molybdenum is increased appreciably by drawing or hammer-