ART. XXXIV.—*A new Metal in the Native Platinum of Rogue River, Oregon*; by C. F. CHANDLER, Professor of Chemistry at Union College.

IN examining native platinum from the above locality, more than a year ago, I became convinced of the probable existence of a hitherto unobserved metal. I have deferred publishing my observations, hoping to obtain material for a more complete examination; in this I have thus far been disappointed.

The quantity of platinum examined amounted to only a few grammes. It was digested with hydrochloric acid to remove impurities, and the solution thus obtained was subjected to the ordinary routine of qualitative analysis.

A brown precipitate was produced by hydrosulphuric acid, which dissolved readily in hydrochloric acid on the addition of a crystal of chlorate of potassa. In this solution metallic zinc produced a precipitate which resembled metallic tin, obtained under similar circumstances. This precipitate dissolved readily in hydrochloric acid on the application of heat, but the solution thus obtained had no effect on a solution of protochlorid of mercury (HgCl), and on cooling deposited a small quantity of minute crystals. To guard against error these experiments were repeated two or three times on small portions of the original solution, always with the same result.

The chlorid of this metal differs therefore from the protochlorid of tin, in not reducing protochlorid of mercury to calomel, and in being but slightly soluble in the cold.

On mentioning my observations to a friend, I was referred to Dr. F. A. Genth's announcement of a new metal, made in 1852,* of which I was not previously aware.

The metal observed by Dr. Genth occurred among grains of platinum from California. It was malleable; it fused readily on charcoal before the blowpipe, becoming covered with a coating of black oxyd; it dissolved in borax to a colorless bead, which became opalescent on cooling; it was dissolved by hot hydrochloric acid and by nitric acid; and its solution gave a brown precipitate with hydrosulphuric acid. It seems quite probable therefore, that the metal which I have observed in the Rogue River platinum, is identical with that observed by Dr. Genth.

Schenectady, March 6, 1862.

* Proceedings of the Philad. Acad. Nat. Sci., Dec. 1852, and this Journal, [2], xv, 246.