16. *Jarosite from Utah*; by F. A. Genth. (Communicated). —Messrs. Geo. L. English & Co. have recently brought from the Mammoth Mine, Tintic District, Utah, interesting varieties of *Jarosite* in minute crystals, lining cavities of a siliceous limonite, and sometimes associated with a pulverulent, yellow mineral, probably a basic ferric sulphate. The crystals are of a yellowish brown to dark clove-brown color and a very brilliant vitreous luster; they are very small, from about 0·1 to 1^{mm} in size, and look so much like cubes with tetrahedral planes, that they were mistaken for pharmacosiderite. A closer inspection, however, showed their rhombohedral forms. Prof. Samuel L. Penfield had the kindness to examine them for me, and gives the following information. "The crystals are so rounded that they will not give distinct and satisfactory reflections. From a very small crystal I obtained $R \wedge R$ 88° 27′, while Naumann gives 88° 58′ for jarosite, an agreement as close as I could expect. I also identified the base, and a very small plane $-2R$. I was able to produce basal cleavage."

Even the best specimens placed in my hands by Messrs. English & Co. did not furnish me with absolutely pure material for analysis, owing to the fact that the crusts are very thin and the crystals stick so fast to the siliceous matrix and often enclose the latter that only at the expense of a great deal of time and patience, about one gram of nearly pure fragments of crystals could be obtained (I); analysis (II) was made with somewhat larger and darker crystals. Both show a slight contamination with siliceous limonite —but the analyses leave no doubt that the mineral is *jarosite*. Spec. grav. of I (taken in alcohol) = 3·163. The analyses gave:

	I.	II.
SiO_2	0·08	0·29
Fe_2O_3	50·41	51.16
Na_2O	9·23	0·33
K_2O		9·05
SO_3	29.60	28.93
H_2O	10·68	10·24

Chem. Laboratory, 111 S. 10th st., Philadelphia, October 13, 1889.