

Analyses of the Copper Implements.—Continued.

No. of sample.	Loss of insoluble material treated with hydrofluoric acid and sulphuric acid.	Percentage composition.								
		Copper.	Lead.	Iron.	Cobalt.	Nickel.	Antimony.	Arsenic.	Tin.	Sulphur.	Total.
	<i>Grams.</i>									
N.K. 98	0.0035	.....	.....	.....	.....	.....	.....	.....	None.	.....
N.K. 93	0.0083	.....	.....	.....	.....	.....	.....	.....	None.	.....
N.K. 83	0.0061	58.27	0.55	Trace.	.....	.....	0.37	0.68	None.	.....
N.K. 248	0.0099	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 276	0.0071	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 280b	0.0048	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 274	0.0002	93.21	0.33	0.06	None.	None.	0.15	4.88	None.	98.63
S.K. 302	0.0009	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 332	0.0124	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 281	None.	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 353	.....	.....	12.64	Trace.	.....	.....	.....	.....	None.	.....
S.K. 334	0.0073	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 203	.....	70.42	21.69	0.46	None.	None.	0.41	0.49	5.57	99.04
S.K. 166	0.0121	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 166	.....	95.39	0.14	0.76	None.	0.02	0.61	2.04	None.	98.96
S.K. 199	0.0073	55.58	0.37	Trace.	None.	0.04	0.16	0.64	None.	.....
S.K. 146	.....	97.74	0.38	Trace.	Trace.	0.07	0.04	1.67	None.	99.90
S.K. 142	.....	95.19	1.20	1.08	None.	None.	0.08	2.29	None.	99.84
S.K. 143	.....	94.58	0.13	0.47	None.	None.	Trace.	4.43	None.	99.69
S.K. 144	0.0092	50.63	None.	0.84	None.	Trace.	0.97	2.40	None.	.....
S.K. 40	0.0355	78.43	0.02	Trace.	None.	0.32	0.22	0.44	5.81	.....
S.K. 97	0.0084	.....	.....	.....	.....	.....	Trace.	.....	1.65	.....
S.K. 61	0.0026	41.83	0.51	Trace.	None.	0.01	0.10	None.	1.58	.....
S.K. 141	0.0300	.....	.....	.....	.....	.....	None.	.....	None.	.....
S.K. 8	0.0023	.....	.....	.....	.....	.....	.....	.....	None.	.....
S.K. 145	0.0005	8.85	None.	1.13	Trace.	0.06	0.10	0.38	0.59	.....
S.K. 205	0.0402	37.20	0.59	0.53	None.	0.03	0.13	0.07	None.	.....
S.K. 247	.....	.....	.....	.....	.....	.....	.....	.....	None.	.....

VII. TREATMENT OF THE FILTRATE FROM CUPROUS SULPHOCYANIDE.

The filtrate from the precipitated cuprous sulphocyanide was boiled down to a third of its volume to remove sulphur dioxide, and hydrogen sulphide was passed into the hot solution. The precipitate (which might contain sulphides of antimony and arsenic with traces of sulphides of lead and copper and possibly of tin in case ammonium hydroxide had not been used in I to effect complete hydrolysis of the salts) was collected upon paper and washed. The filtrate was reserved.

VIII. TREATMENT OF THE PRECIPITATE BY HYDROGEN SULPHIDE IN PRESENCE OF LEAD.

The precipitate by hydrogen sulphide in the acidulated and concentrated solution left after removal of cuprous sulphocyanide was treated on the filter with sodium sulphide, and the filter was washed. The solution, which might contain sodium arsenate and sodium antimonate and traces of sodium stannate in case ammonium hydroxide had not been used to complete the formation of meta-stannic acid in the first nitric acid treatment, was treated according to the methods of section IV for the determination of antimony as antimony trisulphide, of arsenic as arsenic pentasulphide, and (if necessary) of tin as stannic oxide. The residue left upon the filter after treatment of precipitated sulphides with sodium sulphide was ignited with the filter and treated for the determination of lead as lead sulphate, and for copper as copper oxide, according to the methods of section III.