approximately the same in both analyses, but is a little higher in the more brittle silver of the arsenate part.

In arsenate part Ag : Hg = 16,61 : 64
In silver part Ag : Hg = 90,54 : 3,08

Since the iron is in the ferrous condition it has been calculated as symplesite, the iron arsenate corresponding to erythrite and annabergite. Symplesite has not been recognized hitherto in Cobalt ores, though it might be expected to occur. Cobaltous and nickelous oxides are calculated to erythrite and annabergite respectively.

So far there can be little doubt that the calculation represents the true mineral composition. There are, however, many arsenates of copper, while calcium and magnesium arsenates are known, and these elements may also replace cobalt or nickel in erythrite and annabergite, according to analyses recorded by Dana. If a compound $R_3As_2O_8 . 8\ H_2O$ (R= Ca, Mg, Cu Al) analogous to erythrite be calculated for the lime, magnesia and copper oxide found then small amounts of arsenic and antimony pentoxides remain uncombined and a little more water than was found in the analysis is required. Certain of the copper, calcium, and magnesium arsenates, however, contain less water and more arsenic than the assumed compound and some of these may be present. The excess of arsenic would also be explained if a small amount of native arsenic were present. If so, it must be in a very finely divided condition and would be difficult to detect.

The percentages of the different minerals so far as they may be definitely calculated are given below:

	Argentite	Native Silver with Sb and Hg	Symplesite	Erythrite	Annabergite	Arsenates of Cu, Ca, Mg, etc.	Quartz	Total
Per cent.	13,21	18,01	21,09	20,60	4,65	about 18,00	4,11	100,03