The origin of the Friedensville zinc deposits has long been in dispute and there is a justifiable difference of opinion regarding the explanations that have been offered. Drinker supposes "that the zinc was originally disseminated through the dolomite, in the form of carbonate or sulphide." Later the small particles were dissolved by water carrying an excess of carbon dioxide, converted into zinc sulphate by coming into contact with sulphuric acid formed by the decomposition of pyrite, and finally precipitated in their present location as zinc sulphide through the action of animal matter contained in the limestones.

Lesley held somewhat similar ideas and said that "it is probable that they (lead and zinc minerals) were deposited with the limestone in far greater abundance in ancient ages, and were originally brought into the Appalachian sea as soluble salts, together with the lime and magnesia waters of the primeval rivers" and that "the dissolution of the lime rocks has produced concentrated masses of zinc ore." He compared them to the residual limonite deposits which are found in the same rocks but had no explanation for "zinc being substituted in the place of iron."

Clerc suggested a deep-seated origin in his published statement that "they belong to a class of deposits which seem to warrant a belief in their continuance to a considerable depth."

Kemp states that "the veins were evidently filled by circulation from below that brought the zinc ore to its present resting place in the shattered and broken belt."

In any discussion of origin of the Friedensville zinc ores a sharp distinction between the primary concentration and their secondary alteration must be made. Concerning the latter there seems to be fairly general agreement. But for the primary origin there are radically different views. The question is larger than the origin of the Friedensville deposit alone. It embraces the whole group of zinc ores found in limestones and includes the famous lead and zinc deposits of the Mississippi Valley, the Appalachian occurrences in Tennessee and Virginia, as well as scores of other localities. The problem has been discussed in many articles during the last 40 years. Clearly it is beyond the scope of this discussion to examine critically all of the evidences presented in this broad field.

The problem is whether the primary zinc (and lead) ores were formed by ascending heated magmatic waters or by descending, lateral moving, and artesian ascending meteoric waters. In other words, do they owe their origin to waters ascending from some unknown underlying mass of igneous rocks or do the ores represent the concentration by meteoric waters of metallic sulphides that originally existed as disseminations in the Paleozoic limestones?

In previous articles by the author on Friedensville in 1924 and 1925 particularly, the meteoric origin of these ores was advocated. Artesian waters of meteoric origin were thought to be the media for their concentration. His views are expressed in the following quoted paragraphs.