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CONDUCTED BY

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this active agent, even when largely diluted, it is necessary to be very much on our guard, lest the corrosion go too far, and attack the plain parts of the glass.

In this manner, the rich and beautiful picture, representing the Oto Council, as delineated in the atlas, illustrating the narrative of Major Long's expedition, was elegantly etched in two minutes.

We have, for a course of years, tried many experiments upon the etching of glass, by the fluoric acid vapor, and have usually succeeded more or less perfectly; but we can confidently recommend the *pure diluted acid*, as being entirely superior, in energy, neatness, and ease of management. Although the strong acid is violent and dangerous, in the extreme, and should be by no means allowed to touch the skin, either in the fluid or vaporous state, the diluted acid may be managed with ease and safety. Still, a pupil, who incautiously dropped some of the latter upon his hand, experienced inconvenience for six weeks—that period having elapsed before the sore was healed.

It is proper to remark, that whenever the acid was poured from the receiver, the latter was firmly grasped by tongs of a peculiar construction, in order to avoid the danger of having the liquid come in contact with the hand.

INTELLIGENCE AND MISCELLANIES.

I. DOMESTIC.

I. Vindication of Mr. Henry Seybert's claim to the discovery of fluoric acid in the condrodite, (Maclureite of Mr. Seybert, yellow mineral of Sparta, N. J.)

Philadelphia, Feb. 25, 1823.

Sir,

BUT for some erroneous statements in Mr. Nuttall's reply to my letter of the 11th November, 1822,* our Controversy might have terminated. I feel it, however, a duty to

*See Journal of Science and Arts, Vol. VI. p. 168, & seq.

correct these statements, and the more especially, as it will be done with the aid of facts that are important in the history of the mineral in question.

Mr. Nuttall says, "If I am called upon, *as you are aware*, by Mr. H. Seybert to say when and where, I had *heard* of the existence of Fluoric acid in the Brucite or Condroidite, I might refer him back to a period when he was too young to have been acquainted with even the name of Chemistry."* I put no such questions to that gentleman: on a former occasion he told us, that "the condroidite, or Brucite, almost peculiar to Sparta, discovered likewise by the celebrated Berzelius, in Finland, accompanied by gray Spinelle is (*according to an unpublished analysis which I made in 1820,*) a Silicate of Magnesia with an *accidental* portion of Fluoric acid and Iron."† Mr. Nuttall did not then refer to any analysis made prior to that which he pretended to have made; my protest was therefore *directly* against his being the discoverer of the fluoric acid in this mineral. From the fact contained in my letter, above referred to, Mr. Nuttall, *as far as concerns himself*, has been obliged to renounce every pretension, heretofore made by him, on that subject. Mr. Nuttall seems still disposed to believe, that the fluoric acid in this mineral is an *accidental* ingredient, and he attributes its presence to "the contiguity of slender veins of fluuate of lime to the masses of condroidite or Brucite near to Franklin furnace, at Sparta."‡ The fact, however, is that *Sparta* is six miles distant from Franklin furnace, and I do not know, that any one has hitherto announced that *fluuate* of lime, lies contiguous to the carbonate of lime in which the Maclureite at *Sparta* is imbedded. I found none of it when I examined that locality. What influence the fluuate of lime, at Franklin furnace, may have had in the composition of the Sparta mineral, I must leave to be determined by those who are more disposed than I am, to speculate on this subject. Again, if fluuate of lime had been found *contiguous* to the Maclureite of Sparta, what chemist would pretend, that the magnesia in the latter

*See Journal of Science and Arts, Vol. VI. p. 171.

†Ibid, Vol. V. p. 245.

‡Ibid, Vol. VI. p. 172.

would have decomposed the former, to combine with its fluoric acid. In support of this belief, Mr. Nuttall tells us, that this mineral has been found at West-Point, in New-York, and that it has been observed with idocrase and mica from Vesuvius: he then says, "in these no trace of fluoric acid has as yet been discovered." To obviate this seeming objection, I will ask Mr. Nuttall if he knows, that the constituents of the specimens from the localities which he has cited, have been ascertained. As far as my knowledge extends, no chemist has yet analyzed them, and I confidently anticipate, that when they shall be examined they will all prove to be *fluo-silicates of magnesia*. Analogy authorises such anticipations. If we even admit, that no fluoric acid has yet been discovered in the cases cited by Mr. Nuttall, we are not thence to infer, that this acid does not exist there, because we know that, that acid escaped the notice of Berzelius, when he analyzed the condrodite, found in Finland, and that I afterwards detected it in that mineral, though no *fluat* of lime accompanied the specimen which I examined.*

In the next place Mr. Nuttall tells us, that the Sparta mineral "was announced by Professor Cleaveland in his first edition of Elements of Mineralogy under the name of *Brucite*." I am surprised at this assertion and will thank Mr. Nuttall, to point out the page in Cleaveland's first edition, where the word "*Brucite*" is imprinted. I maintain that it cannot be found in any part of that valuable work.

The term "*Brucite*" was announced, for the first time, in 1819 to be "a new species in mineralogy, discovered by the late Dr. Bruce. We hope to publish in the next number a description and analysis of it."† Notwithstanding the anxiety for an analysis of what some now pretend to be this mineral, none was published prior to mine, in 1822,‡ although eight numbers of Professor Silliman's Journal, appeared subsequently to its being mentioned in that work. I maintain, that Dr. Bruce considered the Sparta mineral, a *silico calcareous oxide of titanium*. For my proofs, I refer

*Journal of Science and Arts, Vol. V. p. 366.

†Ibid, Vol. I. p. 439.

‡Ibid, Vol. V. p. 336.

to the Mineralogical Journal of Dr. Bruce,† to Professor Cleaveland's works,‡ and the late illustrious Haüy.§ The last named philosopher has told us, that he received some specimens of this mineral from Doctor Bruce, with the information that it was a *Silico Calcareous Oxide of Titanium*, and that he, relying upon the Doctor's account of it, adopted the error, until it was removed by his own crystallographical investigation, and by Berzelius' account of the analysis which he made of it; he then considered it a *Silicate of Magnesia*,|| substituting one error for another. Such was the state of their knowledge, on the continent of Europe, concerning the composition of this mineral, at the close of 1821, and in Great-Britain, they had made no further progress concerning it in 1822.*

Notwithstanding the facts above referred to, Mr. Nuttall, in his reply, relates that Dr. Langstaff, of New-York, as long ago as 1811, analyzed the Sparta mineral, and he then gives the doctor's account of it as follows, viz. "it yielded about,

| | | | |
|---------------|---|----|---------------------|
| Silex | - | 32 | |
| Oxide of Iron | - | 6 | |
| Magnesia | - | 51 | |
| Water | - | 2 | and by abstraction, |
| Fluoric Acid | - | 9 | |
| | | | <hr/> |
| | | | 100 |
| | | | <hr/> |

The reader will estimate the value and necessity of the word "about" in the foregoing statement, when the numbers given conduct us to so exact a result! Dr. Langstaff was a pupil in Dr. Bruce's Laboratory, and it is now asserted, that the above analysis was made there in 1811! Is it probable, if such had been the fact, that Dr. Bruce would have remained, until his decease, ignorant of it? or that, if he had known it, he would, several years thereaf-

†Bruce's American Mineralogical Journal, Vol. I. 239.

‡Cleaveland's Mineralogy, p. 158, first edition, 1818.

§Annales des Mines, Vol. VI. p. 527.

||Ibid.

*Journal of the Royal Institution of G. B. Vol. XII. p. 329.

ter, consider this mineral a *Silico Calcareous Oxide of Titanium*, and make a misstatement to Haüy? Can we suppose that Dr. Langstaff would have withheld this information until December, 1822, *eleven years* after he claims to have made the discovery? Why did he not add his analysis* to the short notice of the Brucite, when it was first announced in 1819? It was then named to the world, without an indication of any one of its *physical* or *chemical* characters; not a word was even said about the bed where nature had cast it! These gentlemen might with equal propriety claim any new substance containing fluoric acid and magnesia. Notwithstanding all their efforts, not one of them has cited a single experiment which he made with this mineral! When Mr. Nuttall first claimed the discovery of the fluoric acid, in the Sparta mineral, he at the same time said, that his results were confirmed by Dr. Torrey's experiments.† Why did he then neglect the more important one which he now urges in favor of Dr. Langstaff? he alone can account for the omission. In his late reply to me he says, that Dr. Torrey, *five years ago*, "also found the existence of fluoric acid, as well as the other ingredients mentioned in the analysis of Dr. Langstaff."‡ From these statements it would seem, that Dr. Langstaff, in 1811, made an analysis of the mineral from Sparta, and that his results were confirmed by Dr. Torrey in 1817; still the *Brucite* was introduced to the scientific world in 1819, only with its name, without character, and regardless of its birth-place! Now they even dispute who discovered this mineral. Whilst Dr. Bruce lived, that merit was given to him; but since the decease of that gentleman, his former pupil, Dr. Langstaff, claims the discovery for himself! This might be considered of no consequence to the question, did it not prove, how opinions concerning facts, that we supposed long ago well established, have been changed to answer temporary purposes.

When the name "*Brucite*" first occurred in the *Journal of Science and Arts*, I supposed it was intended to design-

*The annunciation of that mineral was made, not at the instance of Dr. Langstaff, but by the request of Col. Gibbs; the promised analysis was, however, never forwarded.—ED.

†*Journal of Arts and Science*, Vol. V. p. 245.

‡*Ibid*, Vol. VI. p. 172.

nate the *red oxide of zinc*, discovered near Sparta, and first analyzed by the late Dr. Bruce; there was great reason for this opinion, because we derived our knowledge of that new species from the labors of that gentleman. In conclusion it is presumed, that no new claimants will urge further pretensions, and I flatter myself, that the facts which have been stated will satisfy every candid reader. I have to express my regret for the necessity of this appeal, but, at the same time, hope you will consider it entitled to a place in the next number of the Journal.

With sentiments of regard and esteem,

your obedient servant,

H. SEYBERT.

2. *Abstract of the Proceedings of the Lyceum of Natural History, New-York.*

Mr. Pierce read some "observations on the Geology of the Catskill Mountains," (pub. in No. 9, of this Journal,) and presented a collection of minerals and fossils from the district described.

Dr. Van Rensselaer presented a perfect specimen of the *Cyperus papyrus*, collected by himself from the river Anapo, near Syracuse, in Sicily, accompanied by a paper illustrative of its natural history, and its uses in the arts.

Dr. Dyckman, in the name of Dr. Stevenson, presented a collection of Plants, and a box of minerals from France.

A letter was received from Mr. Pierce, announcing the discovery of a copious chalybeate spring near Litchfield.

Mr. Blunt presented some fine specimens of *Zoophites* from Bermuda.

A paper was read by Dr. Dekay on a new and beautiful species of *Sertularia*, from the bay of N. York, the *S. utricularis*, with the following specific characters. *S. caule simplici, vesiculis utricularibus diaphanis, ore stricto, margine nigro, &c.* it is nearest allied to the *S. cupressina*. By a letter since received from the celebrated Lamouroux, it appears he has adopted the name and description.

Mr. Emmet read a report on an ore of iron from the Highlands of N. York, which was referred to him for examination. It is a magnetic oxide of a granular texture, mixed with a substance resembling quartz in appearance, of