intention, certainly, was not to try to deprive Quintino Sella of his well established right of priority. It never occurred to me that anyone could conceive that I was offering "something new" by recalling, as a necessary introduction for the rest of my paper, the condition for tautozonality of three faces in the form of the coefficient determinant. It has been known in that form for nearly four score years.

I did not intend to claim credit for having introduced determinants in crystallography, but stated in two different places the portions of my article I believed to be new. (1) In the first paragraph (page 593), I said: "The application of the elementary properties of determinants leads, moreover, to several new zonal relations"; (2) page 595, fourth paragraph: "The following fact has not been mentioned, as far as the writer is aware. . . ." The theorems which appear below this statement (labelled from A to D), including the rule given on page 598, are the only contributions which I thought (and still think) to be original.

If my presentation has lacked the necessary clarity to avoid misinterpretation, I deeply regret the fact. Possibly I should have quoted in the introduction the footnote which the French master, G. Friedel, wrote on page 896 of his "Groupements cristallins":

"On ne croira pas, je l'espère, que je pense dire ici des choses nouvelles. Mais on verra plus loin combien ces notions élémentaires ont été perdues de vue et qu'il n'était pas inutile de les rappeler."

OPALIZED SPHERULES FROM UTAH?

A. E. ALEXANDER, *Buffalo Museum of Science.*

The Buffalo Museum of Science recently acquired a number of interesting opalized spherules. They were found in Utah, but the exact locality did not accompany the acquisition.

Fully 90% of the mineral grains are uniform in size, the spherules measuring about one millimeter in diameter. The drawing by Miss Dorothy Mosher shows the marked degree of sphericity.

Of particular interest is the presence of a nucleus in each grain, which may be either a sand particle or a small rock fragment. Petrographic analysis of the material surrounding the core showed this substance to be opal.

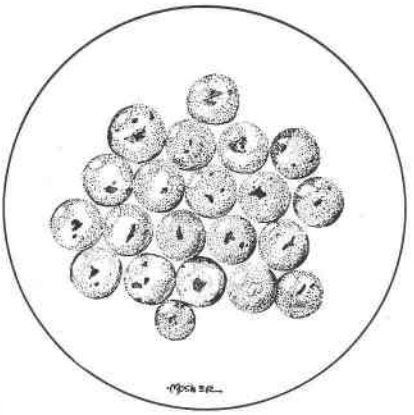

FIG. 1. Opalized spherules with sand grain or rock particle core. Actual size 1 mm.

Not knowing the locality from which these spherules were obtained, no conclusions as to origin can be drawn. However, the presence of opal is suggestive of hot spring deposition. Dr. Hyrum Schneider, mineralogist, and Professor A. L. Crawford, metallurgist, of the University of Utah, kindly examined the material for the writer. An artificial origin is suggested by Professor Crawford, who is of the opinion that these grains *might* be formed from sodium silicate used in flotation mills. The spherules found in mill tailings however were devoid of nuclei.

Any information that anyone might have as to the exact locality from which these spherules might have come and as to the environment under which they were formed, would be greatly appreciated.