

of this nature, in my collection, have not enabled me to connect these hornblende layers with organic structure, nor to discover any traces of Eozoon in the highly crystalline limestone.

The result of my examinations of specimens of the limestone containing serpentine from the quarries near Wunseidel, from Thiersheim, and from between Hohenberg and the Steinberg, were however more successful. Fragments of the rock from near Hohenberg show irregular greenish stripes, which are made up of parallel undulating laminae, or of elongated grains. This banded aggregate is a granular mixture of carbonate of lime, serpentine, and a white mineral, insoluble in acids, which appears to be a variety of hornblende. The grains of this aggregate have generally a diameter of $\frac{1}{16}$ millimeter.

When examined in thin sections, the calcareous portions appear for the most part sparry, and traversed by straight intersecting lines, (Pl. 1, fig. 7 *a*.) or divided into cellular spaces by small irregular bands, which, after the surface is etched, are seen in slight relief. The portions between these bands are granulated. (fig. 7 *b*.) More compact calcareous portions are however met with, and these are penetrated by delicate tufts of tubuli like those of Eozoon, (fig. 7 *c*.) and are adherent to the serpentine portions, which have nearly the same form as in the Eozoon of Steinhag, but are far smaller. (fig. 7 *d*.) In decalcified specimens, they are found to possess the same arched walls as the Eozoon. Their breadth in the cross section is generally about one tenth, and the diameter of the casts of the tubuli only about one hundredth of a millimeter. These broader serpentine portions are generally connected with an adjacent portion of lamellæ, (also composed of serpentine, or of a whitish mineral,) which are not more than one-half their size, curiously curved, and presenting highly arched and deeply incurved outlines, as may be seen in decalcified specimens, (fig. 7 *e*.) The study of these structures leaves no doubt that they are due to an organism belonging to the same group as the Eozoon. In order however to distinguish this distinctly smaller form of the primitive clay-slate series, with its minute contorted chambers filled with serpentine, from the typical *Eozoon Canadense* of the more ancient Laurentian system, it may be designated as *Eozoon Bavaricum*.

I have moreover subjected to microscopic examination a series of specimens from the same limestone horizon in the Fichtelgebirge, which, unlike those described, showed no distinct foreign