

of serpentine with curved and undulating outlines, resembling the Eozoon opicalcite of Canada. The etched portions show, in the carbonate of lime between the serpentine, or in the interspaces of the serpentine, the same relations as the limestone of Hohenberg from the primitive clay-slate formation. The tubuli, which have a certain resemblance with those of Hohenberg, are stuck together, as if covered by an incrustation. Further examinations of this limestone are required to determine more definitely the organic nature of its enclosures.

A fragment of similar limestone without serpentine, from Raspenau, shows not the remotest trace of any organic structure whatever. The same negative results were obtained with a specimen of granular limestone from Tinopoba in Brazil; and with a very coarsely crystalline carbonate of lime, holding chondrodite, from Amity, New Jersey. These negative results show that organic remains are sometimes wanting in the primitive crystalline limestones, as well as in those of more recent formations. The occasional absence from the primary limestones of these regular structures is therefore an indirect argument for their organic origin.

#### *Explanation of the Plate.*

- Figure 1. Section of *Eozoon Canadense*, with its serpentine replacement, showing the fine tubuli and the canal-system, from the limestone of the Hercynian gneiss formation at Steinhag; seen by reflected light, and magnified 25 diameters.
2. Section of Eozoon from the limestone of Untersalzbach; 25 diameters.
  3. Section of Eozoon from the limestone of Babing.
  4. Section of Eozoon from the limestone of Steinhag; 120 diameters.
  - 5, *a* and *b*. Knotted tubuli from the insoluble residue of the Steinhag limestone; 300 diameters.
  - 6, *a*, *b*, *c*, and *d*. Flocculi from the same residue; 400 diameters.
  7. Section of *Eozoon Bavaricum*, with serpentine, from the crystalline limestone of the Hercynian primitive clay-slate formation at Hohenberg; 25 diameters.
    - a*. Sparry carbonate of lime.
    - b*. Cellular carbonate of lime.
    - c*. System of tubuli.
    - d*. Serpentine replacing the coarser ordinary variety.
    - e*. Serpentine, and hornblende, replacing the finer variety, in the very much contorted portions
  8. Aggregated grains of pargasite, remaining after the solution of the carbonate of lime, from the granular limestone rock of Pargas.