

been victimized, by having under their consideration only specimens in which the actual characters had been too much defaced to be discernible. No mistake can be greater than to suppose that any and every specimen of Laurentian limestone must contain Eozoon. More especially have I hitherto failed to detect traces of it in those carbonaceous or graphitic limestones which are so very abundant in the Laurentian country. Perhaps where vegetable matter was very plentiful Eozoon did not thrive, or, on the other hand, the growth of Eozoon may have diminished the quantity of vegetable matter. It is also to be observed that much compression and distortion have occurred in the beds of Laurentian limestone and their contained fossils, and also that the specimens are often broken by faults, some of which are so small as to appear only on microscopic examination, and to shift the plates of the fossil just as if they were beds of rock. This, though it sometimes produces puzzling appearances, is an evidence that the fossils were hard and brittle when this faulting took place, and is consequently an additional proof of their extraneous origin. In some specimens it would seem that the lower and older part of the fossil had been wholly converted into serpentine or pyroxene, or had so nearly experienced this change that only small parts of the calcareous wall can be recognised. These portions correspond with fossil woods altogether silicified, not only by the filling of the cells, but also by the conversion of the walls into silica. I have specimens which manifestly show the transition from the ordinary condition of filling with serpentine to one in which the cell-walls are represented obscurely by one shade of this mineral and the cavities by another. In general, however, it will be gathered from the above explanations that the specimens of Eozoon fall short in thoroughness of mineralization of some fossils in much more modern rocks. I have specimens of ancient sponges whose spicular skeletons, originally silicious, have been replaced by pyrite or bisulphide of iron, and of