1. Limestone with crystals of dolomite and a few fragments of *Eozoon*.
2. Fine-grained limestone with granules of serpentine—the latter filling the chamberlets of fragments of *Eozoon* and small globigerine Foraminifera.
3. Limestone with dolomite and including a thin layer of serpentine as above.
4. Limestone and dolomite with grains of serpentine and fragments of supplemental skeleton of *Eozoon*.
5. Crystallized dolomite, holding a few fragments of *Eozoon* in the state of calcite.
6. Limestone with disseminated serpentine as above, chamberlets of *Eozoon* and fragments of its supplemental skeleton, also small groups of chamberlets, perhaps globigerine Foraminifera.

In other specimens a like thickness of rock presented a mass of fragments of supplemental skeleton with the canals injected with serpentine, and granules of the same filling the chambers.

The chrysotile veins, which are sometimes an inch or more in thickness, but branch off into the most minute fibres, are evidently altogether subsequent in origin to the bedded limestone and serpentine. They are undoubtedly of aqueous origin, and in their mode of occurrence strongly resemble the veins of fibrous gypsum penetrating the Lower Carboniferous marls of Nova Scotia. They cross the bedding in all directions, and pass through the structure of *Eozoon*, though sometimes running parallel to its laminæ for short distances. They must have been introduced after the *Eozoon* was mineralized, and have evidently no connexion with its structure.

In the diagram (Pl. X. fig. 2) I have attempted to represent this relation; and I have no hesitation in stating that the assertion that these chrysotile veins are identical with or similar to the proper wall of *Eozoon* either in structure or distribution, is wholly without foundation, other than that which may arise from confounding dissimilar structures accidentally associated with each other.

Some slickensided joints lined with a lamellar and fibrous serpentine traverse the beds, and, as the chrysotile veins sometimes terminate in them, may be older than the latter. These also were observed to cross the masses of *Eozoon*.

Few disseminated minerals, other than those already mentioned, were observed in the *Eozoon* limestone. A few detached crystals of mica, pyroxene, and pyrite were found in the fragmental layers, and also a few rounded particles of quartz, probably grains of sand.

The perfect examples of *Eozoon*, at least those rendered evident by mineralization with serpentine, are confined to certain bands of limestone, and notably to one band—that originally opened by Mr. Lowe. In this bed the fossil occurs in patches of various sizes, some of them two feet or more in diameter, and bent or folded by the contortions of the strata; others are much smaller, down to a few inches. On the weathered surfaces the specimens mineralized with serpentine project, and exhibit their lamination in great perfection, resembling very closely the silicified *Stromatopora* of the Corniferous Limestone.

None of the specimens of *Eozoon* is of any great vertical thickness. The lower laminæ are generally the best developed and with the thickest supplemental or intermediate skeleton. The upper