

forms, and not as organisms, we must be struck by the utter absence of all crystalline forms, especially in those very minerals which always, and occasionally also in meteorites, appear in a crystallized form.

“Further, the external forms, and consequently the outlines of the enclosures, harmonize so perfectly with their internal form and structure, that we cannot entertain the idea that these enclosures had been rolled about and ground down before they became finally imbedded in the chondrites.

“The idea of an aggregate of crystals, if still looked upon with favour, would be contradicted by the fact that the enclosed balls or globes are all constructed excentrically, whereas all terrestrial crystallites are formed concentrically.”

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### CORRESPONDENCE.

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#### STROMATOPORA AND CAUNOPORA.

SIR,—In the August (1880) Number of the GEOLOGICAL MAGAZINE, which owing to some error of transmission has come to hand only a few days ago, I observe an interesting paper by Dr. F. Roemer, on the relation sometimes observed between the growth of *Stromatopora* and tubular corals; and which in some formations in this country is so common as to have been regarded as a sort of “commensalism.” I have referred to these cases in my paper on *Stromatoporidae* in the Journal of the Geological Society for February, 1879, as well as to other perforations, probably due to the operations of some boring animal. While, however, some specimens of these kinds may have been referred to the genus *Caunopora*, it would be unfortunate if palæontologists should suppose that all the fossils of that genus are of the character in question. It will be seen by reference to the paper above cited, that such *Caunopora* as my *C. Hudsonica*, as well as *C. incrustans* and *C. planulatum*, Hall, not only have vertical canals which are essential parts of their structure, but that these canals send forth radiating tubes into the substance of the thickened laminæ. Of the *Stromatoporidae* with such vertical canals there are two types, which I have referred respectively to the genera *Caunopora* of Phillips, and *Cænostroma* of Winchell: the former having single vertical tubes, the latter groups of such tubes. In America both genera begin in the Niagara formation and extend upward to the Chemung, or from the lower part of the Upper Silurian to the upper part of the Erian or Devonian. J. W. DAWSON.

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#### ON CERTAIN CASES OF THE OUTCROP OF STRATA.

SIR,—As the Rev. O. Fisher's allusions to Spherical Trigonometry in your January Number may sadly perplex many accomplished geologists, who have not made a special study of higher mathematics, I venture to enclose a simplified explanation of his results.

First, as regards the delineation of cylindrical surfaces exposed

