On p. 379 of my paper on the Gunong Bakau rocks I pointed out that without segregation one could not expect to have a rock very rich in topaz. In a pure orthoclase magma the 18·4 per cent of alumina could only produce 32·6 per cent of topaz if attacked by fluorine unaccompanied by more alumina. Dr. Jones produces evidence to show that alumina was introduced into some greisens.[1] I do not know how the rock-sampling was carried out in the cases quoted, nor on how many analyses the results are based; but I do not wish to question the increase of alumina in any of the altered rocks in the table on p. 260 as compared with the unaltered granite. The greatest increase is 2·09 per cent, which, added to the alumina of a pure orthoclase rock, gives a possible 36·3 per cent of topaz, which is still very far short of 90 per cent, and we are not dealing with pure orthoclase rocks. There can be no question that topaz does occur as an original rock constituent. The Meldon aplite, for instance, has been described anew recently,[2] in which topaz is associated with lepidolite, tourmaline, and fluorspar, among other minerals. There is no doubt in my mind that it occurs also as a pneumatolytic alteration product. Each case must be decided on the local evidence.

J. B. Scrivenor.

YUNNAN CYSTIDEA.

Sir,—A few comments are necessary on Dr. Bather's letter in the March number of this Magazine (p. 143) in reply to my remarks on his articles on Yunnan Cystidea. Especially is this the case with regard to the diplopores in *Sinocystis*. Firstly, it must be borne in mind that the figured specimens which were lent to him for a short time for the purpose of making casts for the British Museum constitute the only material on which he can base his conclusions, while I had three times the number of specimens for study for two years. Secondly, it has not been mentioned that these figured specimens before being drawn or sent to him had been cleaned under my eyes with a weak acid solution, which I then observed attacked and partially dissolved a few of the tubercles, so as to remove the thin covering layer of epistereom in some cases and thus expose the pores. Thirdly, the other specimens of *Sinocystis*, numbering over twenty, which Dr. Bather never saw, were examined by me as they came fresh from their limestone matrix, unaffected by weathering, untouched by any solvent, and often only partly exposed. These did not show any pores on the hundreds of tubercles which I scrutinized, except where the tubercles were obviously injured. Fourthly, his statement that on removing a piece of the matrix from one of my figured specimens there was disclosed a tubercle exhibiting the minute pores completely confirms my experience that there is extreme difficulty in getting rid of the closely adherent matrix without damaging the surface, and thus his discovery is of

[1] Op. cit., pp. 259–60.
[2] Geol. Mag. 1919, pp. 41–2.

no value in support of his views. As I was ignorant that he was intending immediately to publish a detailed critical re-description of the species which I had established, and that all his evidence would be obtained from the few figured specimens which were lent for another purpose, the rest of the material was not put into his hands, and the unfortunate errors to which allusion has been made have thus appeared in his otherwise valuable articles on these interesting fossils.

F. R. C. Reed.

Cambridge.
March 14, 1919.

OBITUARY.

ARTHUR EDWARD VICTOR ZEALLEY, A.R.C.S., F.G.S.

Born March 1, 1886. Died October 28, 1918.

A most promising career has been cut short by the death of A. E. V. Zealley from pneumonia following influenza in the epidemic which visited Rhodesia in October, 1918. Zealley received his geological training at the Royal College of Science, London, and afterwards was appointed Demonstrator in Geology there. At this time he worked upon the metamorphosed limestones of Donegal, and published a short note in the Geological Magazine for 1909, but the complete work is still in manuscript.

In 1909 Zealley went out to Southern Rhodesia as Curator to the Rhodesia Museum. In that capacity he saw the collections housed in the first part of a building specially designed for a museum. He made important contributions to the Museum Reports on the minerals, on the mineral resources, and on the gold-bearing rocks of Rhodesia; and wrote articles and papers on the local minerals and rocks.

Zealley joined the Geological Survey of Southern Rhodesia in 1911, shortly after it was started, and remained in that service until the time of his death. His work lay chiefly amongst the metamorphic rocks, and he took part in the mapping of several of the goldfields. He was particularly interested in the ore-deposits, their genesis, and the association of minerals in them.

He had gained a wide knowledge of the mineral deposits of the country, and his work was inspired by the belief that for their efficient development a thorough and exact study of them was necessary. When, after the War broke out, the systematic mapping of the Geological Survey was suspended, he threw himself wholeheartedly into the task of assisting prospectors with the determination of minerals and with advice as to the nature of the deposits they had found. He also took an active part in the work of the Rhodesia Munitions and Resources Committee, which has done much to spread a knowledge of the mineral wealth of the Territory. His ever-ready willingness freely to give his geological knowledge was much appreciated by prospectors and mining men, and will be greatly missed.

H. B. M.