Mr. Forbes has treated the results of various assays (made for commercial purposes) which I quoted, as if intended by me as evidence of this mineral being identical in composition with that from the Fox-dale mine, which would have been absurd. The figures were given solely for the purpose of showing that this ore contains certain quantities of silver; and I specially stated that I knew of no analysis having been made of it. Mr. Forbes will notice, if he refers to my letter, that I did not use the term polytelite at all, Glocker having proposed this name in 1847,[1] for a mineral analysed by Rammelsberg in 1846,[2] which not only contained between 5 and 6 per cent. of silver, but also from 36 to 38 per cent. of lead, with only 0·32 per cent. of copper (and which has been regarded by some mineralogists as an argentiferous *bournonite*). I do not believe the Cornish ore contains any lead.

The difference of opinion appears to arise from the question, as to what constitutes a silver-fahlerz; but I had not, nor have I now, the least intention to enter upon a discussion respecting tetrahedrite, and its many varieties, considerable difference of opinion existing as to the precise limits of the latter. It is quite possible that this ore (which is worked and sold in Cornwall as a silver and copper ore) may be an argentiferous tetrahedrite only; and that is precisely the point I hoped to induce Mr. Forbes to determine by analysis, and hence my letter. THOS. DAVIES.

P.S.—Since writing the above I have been favoured with a letter from Prof. A. H. Church, of the Royal Agricultural College, Cirencester, in which he says :—"I have found in one of my laboratory books the determinations of silver in Cornish fahlerz to which I alluded in conversation with you some time ago. They were made in August, 1865, for the purpose of ascertaining the value of the ore raised from the Silver-vein mine near Lostwithiel. The following were the results: ·73% Silver in a mixed sample of ore in coarse powder. 7·23% Silver in a crystallized fragment of fahlerz, having the density 4·85. 10·45% Silver in another crystalline mass."—T.D.

THE BELGIAN TERTIARIES.

SIR,—In the December number (p. 565), Mr. Godwin-Austen protests against the observations which I made on his paper on the Belgian Tertiaries, in my article in the GEOLOGICAL MAGAZINE for November last (p. 501). With regard to my objections, I can only assure him that I wrote them down in order to remove mistakes, and without the slightest intention of personally offending him. Mr. Godwin-Austen gives a list of fossils from the Cassel-beds (Upper Oligocene) in order to corroborate his opinion on their relative age. I am not aware now where this list is taken from, but that is of no consequence; but I must assure him that nearly all the names there cited are erroneous, according to the works of Sandberger (on the Mayence Basin), of Beyrich (Norddeutsche

[1] "Generum et Specierum Mineralium Synopsis," by E. F. Glocker, Halle, Saxony, 1847, 8vo., p. 31.

[2] "Poggendorff's Annalen," vol. lxviii. 1846, p. 516.

Tertiær-conchylien), of Semper (Palæontologische Untersuchungen), and of Speyer (who has described and figured a large number of fossils exactly, from these beds in Palæontographica),—that is to say, according to all the important works published on that subject in the last ten or fifteen years. The opinion of Mr. Nyst, who of course is the best judge about Belgian Tertiaries, has been cited against me, but this was his former opinion; it is now quite in conformity with mine after the discoveries of the last few years. Lastly, I must repeat that it *is* possible, and therefore *necessary*, to divide the Tertiary deposits into far more than two, four, or six periods. It is of no consequence which names are adopted for them, whether the names Eocene, Oligocene, Miocene, and Pliocene are associated with Lower, Middle, and Upper, or whether we use the names given by Prof. Ch. Mayer at Zürich to all the different "Etages."

A. von Koenen.

Marburg, Prussia, 20*th Dec.*, 1867.

THE OUSE VALLEY.

Sir,—I am sorry that the mistake into which Mr. Searles Wood has fallen respecting the quarter-sheet 45 N.E., of the map of the Geological Survey of England and the Memoir thereon obliges me to request space for self-defence. Mr. Wood's charge is that I have omitted "*all reference* to the Glacial Clay." It is true that I have not sub-divided the Drift of that country into an upper clay and a lower gravel, because, as far as I could judge, I did not find evidence to support such a classification; but I have very distinctly stated that Boulder-clay is one of the forms which the Glacial deposits take (p. 53 of the Memoir), and have described sections where the clay is to be seen (p. 57). The Glacial Beds are not laid down on the published map because, as I have mentioned in the Memoir (p. 59), "additional surface maps are in course of preparation, on which the areas covered by superficial deposits will be marked out;" adding, what every one who has tried the experiment knows very well, that "it would be impossible, on the one-inch scale, to show these beds and the stratified rocks on the same map."

With respect to the sections on p. 34 of the Memoir, and p. 564 of your last volume, which Mr. Wood finds so different, I have only to state that the first has one scale for heights and another for distances, so that the former are exaggerated; the other is drawn to something like a true scale. In the one case too the outline of the supposed ancient valley is rashly drawn hard, and in the other indicated by a dotted line. The facts represented are exactly the same in each case, and I take it rather hard that I should be blamed because four years; experience has made me cautious and, may-be, rather a betterd raughtsman. I have no wish to set up my own limited experience, which I have urged in the Memoir (p. 58) as a reason for refraining from theorising, against the widespread and long-continued researches of Mr. Wood; but I do expect him, before he criticises, to do me the justice to read my memoir more carefully.

A. H. Green.

Monk Bretton, Barnsley, *January* 14*th*, 1868.