in Britain, and no bones of mammals, proves them to be much newer than the neighbouring deposits containing older forms of life." Now, since writing you I have heard from Mr. Prestwich that he found the land and freshwater shells of the Erith beds in this cutting in the year 1850 or 1851, and among them, he thinks, the *Cyrena fluminalis*. Mr. Whitaker, also writes me, in reply to my enquiry, that he thinks he found the *Cyrena* in the cutting West of Dartford Station some years ago, but cannot speak with any certainty, not having his note books of that date with him.

S. V. W., Jun.

SUBAËRIAL DENUDATION.

Sir,—I did not intend to answer communications objecting to arguments and statements in my paper; but one of the letters in your last number demands a few words.

I am sorry that I should have misrepresented the views of my friend and colleague, Mr. Hull, and thereby given him any annoyance; but, at the same time, I am glad that the name of another able and tried geologist may be added to the roll of those who allow that great things have been done by subaërial denudation, though he does not go so far as some of us.

I read his letter on "River-Denudation of Valleys," soon after it appeared (Geological Magazine, Vol. III., p. 474) but did not refer to it in my paper, as it seemed to me to uphold marine rather than subaërial denudation. My mistake arose from taking certain statements of Mr. Hull's, which had reference to some valleys of a certain sort, as applying to valleys generally.

I have not seen his paper in the "Popular Science Review," and I do not hold myself bound to wade through journals of that kind, in search of original articles on geology.[1]

There is another geologist to whom justice was not done in my paper (p. 450)—the Rev. O. Fisher, who, I believe, first published the second of those arguments against the marine formation of escarpments that Sir Charles Lyell admits to be unanswerable (p. 449).

The remarks of your correspondents seem to me to divide themselves, for the most part, as follows:—(1). Some show that, as might be expected (man being fallible), I have overlooked sundry small matters; (2) some make statements of a kind that I have not denied or objected to at all; (3) some have been already answered in my paper; (4) some are simply exceptions to rules that I have stated to be *general, not universal* (and according to the old proverb "the exception proves the rule"); (5) some are founded on a strange misunderstanding of the arguments of subaërialists; (6) some are statements that I cannot agree to, and which I can only meet by

[1] Mr. Hull's criticism (Geol. Mag., Vol. IV., p. 567,) of a sentence in the first part of Mr, Whitaker's paper, "On Subaërial Denudation," (p. 453) should have been omitted, as the sentence objected to was corrected at the end of second part (p. 493), a month before Mr. Hull's letter appeared—by the insertion of the word "us," after "follow" (line 15, p. 453).—Edit.

denial: none materially weaken the arguments in favour of sub-aërial denudation.

That I do not take up the matter in detail is owing, not to inability to defend my position, but to a wish to steer clear of controversy.

W. Whitaker.

P.S.—(1.) Please insert the following corrections of the second part of my paper which appeared in your November number.[1] Page 485, fig. 1, the *c* should have been at the top of the cut. Page 489, fig. 2. The woodcut does not quite agree with the description. The *broken* lines, above what should have been a firm line on the right and a broken one on the left, but which is continuous and somewhat shaky throughout, ought to have been *dotted*.

(2.) In a notice of my "list of Wells and Borings" (p. 510) the reviewer has mistaken the thickness of the surface-deposits, gravel, etc., given therein, for the depth of the wells. Instead of fifty feet being the greatest depth, some of the wells go down eight times that amount.

I take this opportunity of asking all who have notes of wells and borings in the London district, to favour me with a copy of them, such information being very useful to the Geological Survey.—W.W.

RESEARCHES IN BRITISH MINERALOGY.

Sir,—Your last number (which my absence in Spain has prevented me receiving before now) contains a letter from Mr. T. Davies, dated from the British Museum, in which, after referring to some remarks contained in a late paper of mine (Researches in British Mineralogy, Phil. Mag. Nov. 1867), he states that true Silver-fahlerz, or Polytelite, is "found in quantity in this country and mined for the silver it contains."

Being at present occupied in the preparation of a work on British Mineralogy, this information was very acceptable and at once induced me to visit the British Museum, in the full expectation of finding so valuable and interesting a British mineral species displayed in case No. 11; unfortunately I could not perceive any such specimen labelled as Silver-fahlerz, or Polytelite, nor any notice of its occurrence in the official guide to the collection.

In hopes, therefore, of eliciting further information I send you these remarks:—

Tetrahedrite in general contains more or less silver, but can only be termed Silver-fahlerz, Weissgiltegerz, or Polytelite, when it contains a notably large amount of that metal, say a minimum of over 5 per cent., for some specimens contain even more than 30 per cent. silver. The external appearance and physical character of this species, do not differ so considerably as to enable the argentiferous or non-argentiferous varieties of Tetrahedrite to be with certainty distinguished from one another. Although the former is generally found to be more brittle, lighter in colour and streak, and to possess a higher specific gravity, chemical examination can alone decide con-

[1] Unintentionally omitted from the December Number.—Edit.