

glacial observer may visit the locality some day, and give us the benefit of his opinion upon it. In the meantime, as Mr. Pengelly, in his letter in your last number, agrees in the correctness of my description of the facts, perhaps he will favour us with his ideas as to their origin, for I certainly have never seen anything like them except on a so-called glaciated surface.—Yours truly,

DUBLIN, Dec. 4, 1866.

J. BEETE JUKES.

DR. FRAAS ON PRE-HISTORIC SETTLEMENTS.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—In your impression of this month (page 550), Dr. Fraas concludes an interesting article on Pre-historic Settlements with two remarks, thus: “And, secondly, that the discovery at Schussenried indicates a totally different climate, such as *now* begins at 70 degrees of north latitude.” But he gives a *fact* which fully contradicts this *theory*. The remains of *horses* were found at Schussenried. “In one case the skull is still nearly perfect, and it belonged to a species with a large head; while certain bones of the extremities indicate a *strong, bony, and powerful animal*. The brain cavity has been opened, the vertebræ had been split, and the bones containing marrow had been broken in pieces, so that there can be no doubt of horse-flesh having been one of the table delicacies of the ancient Swabians.” Are there wild horses at the North Cape *now*? or in Nova Zembla? or at the Samoyede Promontory?

I have the honour to be, Sir, your obedient servant,

GEORGE GREENWOOD, Colonel.

BROOKWOOD PARK, ALRESFORD,
December 7th, 1866.

THE DEVONIAN ROCKS OF NORTH DEVON.

To the Editor of the GEOLOGICAL MAGAZINE.

DEAR SIR,—I wish I had power at present to enter the lists on the new issue raised by Professor Jukes as to the integrity of the Devonian system. It seems so odd to try to explain away a series of rocks which must have some place, and are distinguished, as all know, by a peculiar set of fossils. Though the Devonian has not *many* striking peculiar types of shells, it has some quite distinct; while the mass of its species are undoubtedly peculiar, and neither Silurian nor Carboniferous. And it is 10,000 feet thick!

Meanwhile, till I have more opportunity, let me just keep your younger readers in possession of the facts that in North Devon, proceeding southwards from Linton and the N. Foreland to the Culm-measures, there are the following distinct series, which Professor Jukes rather summarily groups into Coal, Carboniferous-slate, and Old Red. I know “a rose by any other name will smell as sweet,” but I prefer the well-known names:—

1. Slates and sandstones of Linton and the North Foreland (Lower Devonian).

2. Grey slates and limestones of Combe Martin and Ilfracombe (Middle Devonian).

3. Purple grey grits and slates—Morta Bay, etc. (Upper Devonian ? no fossils).

4. Marwood sandstones and *Pilton* and Barnstaple group (Uppermost Devonian).

5. Dark soft Carboniferous shales—Barnstaple and Fremington (Carboniferous slate).

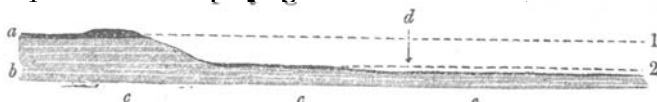
6. Limestones and Culm Measures (Mountain Limestone, Millstone-grit (and Lower Coal ?).

Now this succession has been made out by De la Beche, Sedgwick, Murchison, Phillips, and others; and I have verified a good deal of it myself. Let us understand each other. I am glad to see that Professor Jukes has lately covered more of the ground; and I am sure, if he spends more time in both North and South Devon, he will end by agreeing with his geological brethren. Already he perceives the resemblance in what we call the Lower beds (No. 1), and in No. 3, to the Old Red, as he knows it so well in the South of Ireland. And if he will remember that, in S.W. Ireland, the Upper beds of the Old Red Sandstone lie unconformably on its mass, just as they do in Scotland (Geikie), and through Wales, right away into Pembrokeshire, he will see the importance and extent of the duplex formation which he is endeavouring to supplant. If, indeed, he can find us true Carboniferous fossils in the three lower divisions, we may yield the point to him. Hitherto they have only yielded Lower and Middle Devonian species. No. 4, as he well knows, is the representative of his own "Coomhola grits," which in Ireland lie, at all events, at the base of the Carboniferous slate, and which I have proved to be of the same age as the conglomerate beds (or part of them) of the Upper Old Red in Pembrokeshire. And I have also shown that No. 5 contains Carboniferous fossils only. If, therefore, the uppermost members of the Old Red are equal to the uppermost member of the Devonian, why not make room for the lower, which cover the Silurians?—I am, yours truly, J. W. SALTER.

FLINT CORES FROM THE INDUS.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—With reference to my letter in the October number of the GEOLOGICAL MAGAZINE (Vol. III. p. 433), on some Flint Cores found by my Son, Lieut. Edward D'Oyly Twemlow, of the Royal Bombay Engineers. When he wrote last, about 20 feet of water covered the place, but he has from memory defined the exact spot and depth in the accompanying sketch.



Section on the River Indus, near Sukkur Pass, Upper Scinde.

The lower limestone rock is not seen in the above section, but crops up about 400 yards away from the river, with an upward inclination. The upper 30 feet (c) is found in layers of one and a-half to two