

accepted the cautions of the author as to hasty deductions from the dip of strata at the surface.

Mr. Etheridge considered that the Lower Lias was of greater thickness at Burford than supposed by the author.

The Author, in reply, stated that he did not dispute the fact of the Palæozoic rocks being much disturbed and crumpled, nor did he deny that there may have been some disturbance of the upper beds. What he wished to point out was that the disregarding of the fact that strata thickened in certain directions might be and had been a fruitful source of error.

CORRESPONDENCE.

ORIGIN OF THE FLEET.

SIR,—On this subject, in your February number, my friend Mr. Kinahan follows Herschel, Lyell, Bristow, and Whitaker in attributing the heaping of the Chesil bank to “tidal currents.”

In your November number for 1869 you did me the honour to publish my opinion, at some length, against these high authorities. May I beg space now for a short repetition?

The Chesil bank is 42 feet above high-water. Shingle does not travel on the high-water surface of a “tidal current,” but if it did, how could this current land the shingle 42 feet higher than its own surface? The wind causes the travelling of beach, and I gave this sing-song rule for it—

“As the wind blows, the wave flows;
As the wave flows, the beach goes.”

It is not a “tidal current,” it is the prevalent south-west wind which throws beaches across the mouths of so many of our streams on the south coast, and which drives them eastward as they enter the sea, and among them all the side streams which fall into and from the Fleet.

The reason of the enormous heaping of the Chesil bank is that the travelling of the beach down the wind is interfered with by the peninsula of Portland, which runs out to sea at right angles to the bank, and acts as a gigantic “natural groin.”

It is not only that shingle is now constantly torn down and again landed on the top of the Chesil bank, but a vessel has been heaved bodily over it and into the Fleet. Does Mr. Kinahan think that the vessel floated calmly over the bank on his “tidal current running parallel, or nearly so, to the coast line,” or that it was lifted over by the impact given to the wave by a south-west storm?

I wish that I could persuade my friend Mr. Kinahan to read Chapter viii. of “Rain and Rivers” on the “Travelling of Sea-beach,” where all this is discussed at length.

BROOKWOOD PARK, ALRESFORD,
5th February, 1874.

GEORGE GREENWOOD, Colonel.

WELL-SINKING IN THE LINCOLNSHIRE FEN-DISTRICT.

SIR,—I should be very much obliged to any of your readers who could give me information, or references to books where I can obtain it, on the following point:—

At Lincoln the fen, that extends along the right bank of the

Witham to Boston, first begins. It occupies a strip between the river on the east and a ridge of Inferior Oolite covered with gravel deposits on the west. The fen is of course thoroughly drained, but is very ill supplied with drinkable water. This is got from dykes which take the water from the oolitic region across the fen and above its level; and is of-course at considerable distance from many of the farm houses in the fens.

What probability is there that a bore-hole made through the clays that underlie the fen would tap a good water supply? Is anything known about the thickness of the clay, and the nature of the subjacent strata? I am speaking especially of the fen that lies between Bardney and Nocton, in which I am specially interested.

A farmer there once told me it would be worth fifty pounds to him to get water; and I offered to spend twenty-five pounds on a boring on the condition that if it succeeded he should pay me back. He thought over the suggestion, and could not make it out. Why should I pay *if it failed*? What good could it be to me? He thought there must be something uncanny about it, and he would none of it.

I think of making a boring there in April; and should be truly obliged to any one who will give me information either by private letter, or in the pages of this MAGAZINE.

JAMES M. WILSON.

RUGBY, *Feb. 5th, 1874.*

“DOLMENS” OR “ERRATICS” ?

SIR,—I send you a piece, broken off by mischief last November, from a stone standing near the entrance to the bridle-way leading from the top of Southampton Common to Lord's Wood. There are three other similar stones in the neighbourhood. One is about 300 yards off, near Point-house, one in Burgess-street, and one in Lord's Wood. Very likely there are, or at least have been, others. I have known them a long time, and have often been puzzled as to their object. The answer to all inquiries is: “Oh! They are boundary-stones.” “Boundary-stones of what?” “Sure, sir, I can't say.”

They are nearly square prismatic stones, much weathered—indeed, so much weathered that it was not till this one was broken that I recognized them as Granite. The Granite is fine-grained, light in colour, with a good deal of very black mica.

What are these stones, and where do they come from from ?

In the Hartley Museum there are two specimens of rolled green-stone, said to have been discovered on the spot where the Museum now stands.

G. H. WOLLASTON.

CLIFTON, *17th January, 1874.*

ERRATUM.—In the last Number, foot of p. 66, the Rev. O. Fisher ascribes Mr. J. Clifton Ward's paper on Coral Reefs and the Glacial Period to “Popular Science Review” for April, 1873, whereas it appeared in the “Quarterly Journal of Science” for that date.—EDIT. GEOL. MAG.