Mr. Fisher says, 'That there must be a vacuity somewhere beneath the subsidence is clear. That it should be in the gravel is impossible, because the stratification, as exposed in the sides of the hole for about 10 feet, is perfectly regular; that it exists in the London Clay is also impossible; but that such a cavity should exist in the Chalk is probable.' Now I would wish to question Mr. Fisher's explanation with all humility, as I am but a very young hand at Geology.

The author of the article then proceeds to state, that wells have been bored in the neighbourhood, at distances of a mile or more from the pit; and he continues, 'I conceive, then, that the motion of the water in this subterranean reservoir' (in the chalk at a depth of nearly 300 feet), 'caused by the draught of water at these wells, disturbed the equilibrium of the roofing of the chasm at a point where it was barely stable, and caused the subsidence in question.' I would suggest, if the cavity at this depth were large, why did not a larger area subside?—and, if small, surely it would not cause a roof of from 200 to 300 feet thick to sink. The explanation that I would suggest, would rather be, that erosion has taken place in the Low-level-gravel at a small depth below the pit, say 20 feet or a little more (allowing an inequality in the thickness of the bed of gravel, which at the well a mile distant was found to be about 12 feet), and that, when this erosive action had sufficiently undermined, the roof fell in.

I might better explain my ideas by the following section (hypothetical).

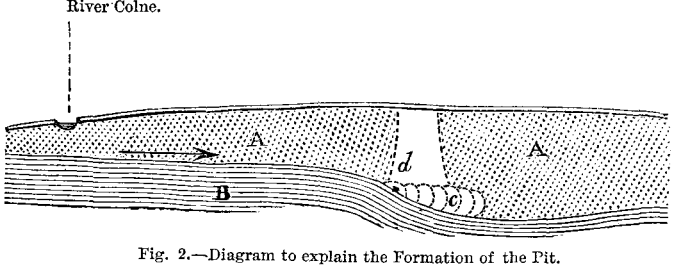

Fig. 2.—Diagram to explain the Formation of the Pit.

A. Low-level-gravel.
B. London Clay.
c. Dotted lines to show successive stages of erosion.
d. Point at which the débris would (and did) stand highest.

The erosion would have been either from water from the River Colne, or from rain having percolated the gravel and run down an inclined surface of the clay at its junction with the gravel.—Yours, &c.,

FRANK RUTLEY.

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THE BURNING WELL AT BROSELEY.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—As I did not perceive any reply in the last Number of the GEOLOGICAL MAGAZINE to the enquiry in the previous Number relative to the Burning Well at Broseley, mentioned in some old topo-

graphies, I have ventured to give very briefly the information required.

The so-called burning well has ceased to exist for nearly a century. It was fed by a spring; and petroleum and naphtha also found their way from rents in the rock into the well with the water, and were occasionally ignited. Springs of petroleum, on a much larger scale than the Broseley one, are met with in the neighbourhood, and the yield of each of these was formerly much greater than at present. Many hogsheads from one of these were exported some years ago, under the name of 'Betton's British Oil.' The rocks were tapped by driving a level through one of the sandstone rocks of the Coal-measures; but these are now drained, and very little is found to flow from them. This is also the case with a spring in Tar-Batch Dingle, about a mile and a half lower down the Severn: the tar-spring is still to be seen, but the quantity given out is smaller, we apprehend, than when it first gave its name to the Dingle.

With regard to its origin, it is well known that many of the trees of the Carboniferous period were resinous, like our pines; and it is easy to suppose that the oil pressed out from the accumulated masses of vegetable matter which formed the coal-seams would become absorbed by the sand-beds above them, and that this oil would naturally find its way out when tapped by shafts, or levels, or water-courses.

JOHN RANDALL, F.G.S.

MADELEY, SALOP: *April* 24, 1865.

ARE THE SEA-ROCKS OF CHARNWOOD FOREST LAURENTIAN?

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—In the last number of the GEOLOGICAL MAGAZINE, Sir R. Murchison, in his paper 'On the Laurentian Rocks of Great Britain, Bavaria, and Bohemia,' brings prominently into notice the *strike of the beds* of the old rocks of the North-west Highlands (fundamental gneiss) as being a feature distinguishing them from the Cambrian and other aqueous rocks of our Island. It may be useful to notice that the *old slate-rocks* of Charnwood Forest have precisely this same *strike*, viz. S.E. by N.W. These rocks, covering an irregular square of about ten miles, have been (doubtfully, I think) classed as 'Cambrian.' They have many features that distinguish them from the 'typical Cambrians' of the 'Longmynd;' among these may be noticed the great variety of rocks,—four species of so-called igneous rock (Granite, Syenite, Greenstone, and Basalt*)—almost every variety of slate, from coarse-grained grauwacké to fine roofing-slate,—the remarkable *metamorphic* character of the whole group: slate passing by insensible gradations into greenstone, and the occurrence of gneiss, in almost close contact with granite; there

* I have part of a fine hexagon from the anticlinal line: it is a coarse-grained basalt.