

water in the river there except in the hollows in a few places. I examined the Churn, which flows into the Thames near Cricklade, and found that river completely dry at South Cerney, and on descending the stream to where the water from Boxwell Spring joins the Churn I observed a considerable quantity of water flowing into the Churn from Boxwell Spring. On visiting Boxwell Spring, about a quarter of a mile up the brook from this junction, I found it discharging about the usual quantity. I had sometime before ascertained the flow of this spring, and did so at this time, and found the discharge about one million one hundred thousand gallons in twenty-four hours. The fact is that the water passing Water Eaton was from the Boxwell Spring; and in passing over about three miles of porous gravel and somewhat peaty soil there was a loss of one hundred thousand gallons per day at that time. This loss would eventually find its way into the Thames lower down the vale. It may be observed that from the middle of August to the middle of October scarcely any rain fell, and that which did fall was absorbed immediately, and made not the slightest difference to the water in the Thames. Our observations extended over forty-five days, from the 24th August to the 8th of October, and during this period the entire supply of the Thames above Water Eaton ceased, except what was supplied by Boxwell Spring." Mr. Bravender concluded by giving an account of the loss of water in the Churn by percolation, being the results obtained by a series of experiments in 1859, showing a loss of upwards of three millions of gallons per day. The loss of water descending the Coln is much greater than that of the Churn.

Two other papers followed; first, some notes by Mr. John Jones, "On Drybrook section in the Forest of Dean;" second, "On the Denudation of the Cotteswolds," by Mr. E. Mitchell.—*Wilts and Gloucestershire Standard*, June 29th, 1867.

CORRESPONDENCE.

FISH-REMAINS FROM THE NORTHUMBRIAN COAL-FIELD.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—The haste with which the critic (in *GEOL. MAG.*, August, p. 378), not waiting for the 'paper,' has assailed the 'abstract,' in the July number, p. 323, would seem to show him moved by some smaller feeling than the desire to know a little more about the fossils of the coal. Howsoever that may be, any remarks which Mr. Atthey, after perusal of the paper and inspection of the fossils therein described, may have to offer will meet with due and respectful attention from me. I would, meanwhile, request your readers kindly to suspend their judgment; and I appeal to them, not so much on my own account, but lest they should attach to the words, "a short time ago" (p. 378), a meaning different from that which Mr. Atthey, speaking from knowledge, must entertain. In justice to Mr. T. Craggs I have to state that I have been favoured by receiving

from that gentleman specimens from the shales of West Cramlington and other places since June, 1865. Both gentlemen are personally unknown to me, though it is possible that they may have been of the number of those who submitted fossils to my inspection after a lecture I previously delivered at Newcastle-on-Tyne.

RICHD. OWEN.

SPIRIFER CUSPIDATUS AND SYRINGOTHYRIS TYPA.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—Absence from home and other causes compel me to defer my reply to Dr. Carpenter's and Mr. Davidson's papers on the structure and histology of "*Syringothyris typa*" for a short time longer, when I shall be able, from ample materials in my possession, to show clearly that it is no other than *Spirifer cuspidatus*, as represented by imperforate and tubeless specimens.

WILLIAM KING.

BELMONT, near GALWAY,
July 8th, 1867.

THE CLAY-BED NEAR STANNAGE, DERBYSHIRE.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—I went up to Stannage the other day for the purpose of determining whether the bed of clay, seen by Mr. Binney, and mentioned by Mr. Maw in his paper in the June number of your MAGAZINE (page 247), was a member of the Carboniferous system or a more recent deposit. There can be no doubt that it is the former. A small pit has recently been sunk close to Spitewinter in order to get clay, it may be some fifteen or twenty feet deep, but as it was partly filled up with water I had no proper means of ascertaining the exact depth. The upper part exposes a section of thin shales, beneath are sandy clays and clay, and lastly, a thin seam of coal, which appears to have been only just touched. There is a good deal of clay under the peat in the immediate neighbourhood, and it has been dug into somewhat extensively still further to the west near the old Cupola marked on the Ordnance Map. When I have time I will endeavour to find out, if possible, the boundaries of the deposit; immediately above it, to the north, is the fine escarpment of what I conclude to be the first grit. May not the shales above-mentioned correspond with those spoken of by Messrs. Hull and Green in their paper on the Millstone Grit, in No. 79 of Geol. Journ. They say "shales, with a thin coal at the bottom, west of Buxton, lie below the Rough Rock." A thick bed of shales has also been exposed by a landslip on the north bank of the river Hipper, below Catholic hill, on the north-west side of Stannage. I may mention that the grit escarpment of Stannage has every appearance of having been an old sea-worn cliff; it has hollows or rock-pools in its face or on its summit; the escarpment is on the south-west side of the hill; on the other side the slope is more gradual, and three or four