

sharp, well-defined lines. From the identity of the age of these Coal-seams with the Permian conglomerate of Alberbury, only fifteen miles distant, he questioned the probability of that conglomerate being of glacial origin, since two climates so dissimilar as a glacial one and that in which a Carboniferous flora flourished could not exist together within so limited an area. In conclusion, Mr. Davies pointed out the necessity for alterations of the boundaries of the Permian and the Coal-measures in any future geological maps of the district.

2. "Note on a Well-Section at Finchley." By Caleb Evans, F.G.S. The author described the various strata traversed by a well recently sunk by the East Barnet Gas and Water Company at the north end of Finchley. The strata are as follows: glacial clays, gravels, and sands, 55 feet; London clay (with basement bed containing *Cyprina*, *Panopæa*, etc.), 171 feet; Lower Tertiaries (mottled clay, pebble beds, and sand), 58 feet; chalk with flints, about 216 feet. At this depth a good supply of water has been obtained.

CORRESPONDENCE.

THE GEOLOGICAL SURVEY IN THE SOUTH OF SCOTLAND.

SIR,—In reply to Mr. Jack's letter in the December number of the GEOLOGICAL MAGAZINE, I beg to refer him to Mr. Lapworth's communication in the same number, from which it will be seen that an opinion, practically identical with the one I expressed in the previous number, has for some time been held by Mr. Lapworth, who has thoroughly and completely worked out the inter-relations of the Moffat shales, and from whom I received the first hint that these shales were capable of division, by their fossils, into distinct zones, easily recognizable in localities far apart.

Pending the issue of the Geological Survey Memoir on the whole Silurian region of the South of Scotland, in which, I infer, from Mr. Jack's letter, the fossiliferous rocks will be distinguished bed by bed, and all the fossils assigned to their proper zones, I adhere to the conclusion at which I arrived about two years ago, after examining a series of fossils collected by the Geological Survey of Scotland in the Leadhills district, and which is expressed in the Annals of Natural History for May, 1871, viz. that these fossils "parallel the rocks of this locality [Leadhills] with those of Moffat, Dumfriesshire, or with the Llandeilo flags of Wales.

Mr. Lapworth may perhaps be right in referring some of the higher zones of this Graptolite-bearing shale (which have only come under my observation in the Moffat district) to a higher horizon than the Llandeilo, for they are characterized by the presence of several species which occur in the overlying Gala group, in its representative, the "Graptolitic-mudstone" of Westmoreland, and in Barrande's *étage E.* in Bohemia, while they have not yet been found in the Llandeilo rocks in Wales. Whether, however, a series, away from the Welsh area, should be referred to the summit of the Llandeilo or to the base of the Bala group, is a matter, at present, of no great moment. I refer to it here to show that, in describing my new species of Graptolites as "Graptolites of the Moffat Group," I was not unaware that a division of the beds in which they occur might be possible after a careful survey of the whole region; but, while fully acknowledging the admirable manner in which Mr. Jack has mapped and described those portions of the Silurian region of the South of Scotland which he has himself examined, I cannot concur

in his opinion that the Leadhills shale is many thousand feet higher, and therefore of much younger geological age, than that of Moffat.

JOHN HOPKINSON.

BIOGRAPHICAL INQUIRIES.

SIR,—The difficulty I found in getting together information about Richardson, Townsend, and Lonsdale,¹ and the scantiness of the records of many other of the early geologists, has led me to wish that we had a recognized channel for Notes and Queries on subjects of geological history.

I venture to submit that a page or two of the *GEOLOGICAL MAGAZINE* given to this purpose would be welcomed by young geologists. There are many of the older Fellows of the Geological Society who cherish in their memories fragmentary reminiscences of some of the most honoured and useful among the early workers in the science and the founders of the Society. Some of these preserved, even as detached records, would be of value.

The method of working, opinions held, but never printed, journeys taken, acquaintance with other scientific men, are facts about geologists which may often explain the meaning of their writings.

The origin of many of our geological terms in use, the time and reason of the abandonment of old terms and classifications, the gradual growth and spread of opinions before any indication of them appears in print, are all matters on which young geologists can gain no information except they can be obtained from the veterans of the science and placed on permanent record in print.

A correct appreciation of what has been already done is the first step to future work. Though your *MAGAZINE* is devoted to the *advancement* of science, I beg your consideration as to whether such notes as I suggest may not fitly find a place.

New University Club, St. James's St.,
London, S.W., December 18, 1872.

W. S. M.

NOTES AND QUERIES.

1. Cuvier and Brongniart, in the first abstract they published of their work, state that they made a hurried communication before their investigations were complete because "some circumstances" compelled them to publish at once, in order to claim priority of date. Has it ever been openly stated what these circumstances were? Had they anything to do with William Smith's work in England?

2. In Hamilton's Anniversary Address to the Geological Society on February 15th, 1856, in the obituary notice of Greenough, is this passage, "In that year (1807) he succeeded in associating with himself several active and able advocates of the then infant science, the result of which was a proposal to found a new society, for the furtherance of geological and mineralogical sciences. A printed list of geological queries was issued, and regulations for the management of a new society were discussed and arranged."

Is there any copy of this printed list in existence? It would be interesting to know what were considered at that time to be important geological queries.

W. S. M.

¹ See Proceedings, Bath Field Nat. Club, 1872.