ample time for the formation in mountain regions of deep valleys, down which, during the Glacial epoch, glaciers would take their course. He noticed the evidence of this local glaciation furnished by the striation of the Welsh mountains, from which he inferred that these mountains as a whole were not overridden by a great ice-sheet coming from the north, and he described the course of the glaciers flowing from the north-west slopes of Snowdonia as being in the directions west, north-west, and north. These glaciers, however, did not reach the region now occupied by the Menai Straits, but spread out in broad fans on the north-western slopes of the hills now overlooking the Straits, a fact indicated by the directions of the glacial striæ in these parts. Anglesey, therefore, was not glaciated by ice-masses coming from Snowdonia; and as the striations on that island point directly towards the mountains of Cumberland, the author inferred that these markings were produced by a great ice-flow coming from that region, reinforced probably by ice-streams from the north of Scotland, and which were large and powerful enough to prevent the glaciers of Llanberis and Nantffrancon from encroaching on the territory of Anglesey.

The author described the rocks bordering the Straits as consisting of nearly horizontal Carboniferous strata, which, from appearances, must once have filled the whole of the region now occupied by the straits. He considered that the softer shaly, sandy, and marly beds, remains of some of which are still to be seen on the coast, were swept away by the action of the great glacier coming from the north-east, forming a valley now occupied by the sea; and in support of this view he cited the valley of Malldraeth Marsh, running across Anglesey, parallel to that of the Menai Straits, about 4 miles to the north-west, which a very slight change in conditions would convert into a fjord, differing from the Straits only in being closed at the north-east end.

CORRESPONDENCE.

[*The subjoined letters, from* the Rev. J. F. Blake *and* Prof. G. A. Lebour, *were, by an oversight, omitted to be published in last month's* Magazine; *the Editor begs to apologise for the unintentional delay which has occurred.*]

LOWER SILURIAN FORAMINIFERA.

Sir,—In some thin-bedded, finely-laminated shales, referred by the Geological Survey to the Caradoc series, at a spot about eight miles east of Aberystwith, in the neighbourhood of the lead-mines, I noticed a slab covered by numerous hollows, coloured red as if from oxide of iron, and of an elongated shape. On examining these hollows more carefully with the microscope, several of them present most perfect outlines of Dentalian Foraminifera, and two in particular present that peculiar tubular elongation for the main foramen, which is denoted by the term Ectosalenian. The walls between the chambers are also indicated in several, though obscurely, the sub-

stance of the shell having in all cases perished. The most perfect of these hollow casts could not be distinguished from that of *Dentalina communis*, and I could venture to name other forms, but with less certainty.

As I am not aware that we have any recorded instances of Foraminifera of this modern type occurring so low down as the Lower Silurian in Britain, though they have been found in rocks of this age in Russia, I think the fact of sufficient interest to be noticed, giving us, as it does, so good an idea of the persistency of lowly-organized life from specimens in our own country. The slab is marked on the other side with the tracks of *Nereites Sedgwickei*, and is now in the Museum of the University College for Wales.

ABERYSTWITH, *November*, 1875. J. F. BLAKE.

RANGE OF *SACCAMMINA CARTERI*, BRADY.

SIR,—If Mr. Bennie had read the note he quotes in its proper association, I think he would not have written the letter which appears in the January Number of the GEOLOGICAL MAGAZINE, though we, its readers, might thereby have lost a valuable contribution to our knowledge of the distribution of *Saccammina*.

The text of my paper runs thus: "Nearly all the organisms which it was supposed characterized the Yoredales in Northumberland have now been found in the lower beds of the Carboniferous Series. . . ." Then comes the note: "Up to the present time, the well-marked foraminifer *Saccammina Carteri*, Brady, is apparently limited to a bed in the Upper or Yoredale part of the series, viz. the Four-fathom Limestone." (GEOL. MAG., 1875, Dec. II. Vol. II. pp. 542, 543.)

It will be seen that the words "in Northumberland" apply equally to the note and to the text. And *as Saccammina has never yet been found out of the Four-fathom Limestone in Northumberland*, the statement needs no correction.

If Mr. Bennie will turn to page 329 of the "Geological Record" for 1874, he will see an abstract of Mr. Young's paper on *Saccammina*, signed by myself. The explanation of Sheet 23 of the Geological Survey of Scotland has likewise been known to me ever since its issue, and the localities for *Saccammina* duly noted.

That the exact horizon of the Dunbar locality, which I had been given to understand was considered as doubtful, has been satisfactorily determined, I am exceedingly glad to hear; the more so as perhaps the most remarkable specimen of the fossil in question which has yet been found is one which was collected in that neighbourhood many years ago by Mr. F. M. Balfour, of Trinity College, Cambridge.

Far from imagining, as Mr. Bennie seems to imply, that *Saccammina* was limited to one horizon *out of Northumberland*, I have for the last few years followed with great interest the almost daily increase of its known range, both geographical and geological.

I think that when Mr. Bennie sees the list of localities in which