

palaeontologically similar, seem to be on different geological horizons ; as the first are associated with Keuper Marls, and the latter with Bunter Sandstones.

G. HENRY KINAHAN.

UPPER DEVONIAN IN DEVONSHIRE.

SIR,—In connexion with Prof. Roemer's paper in the April GEOLOGICAL MAGAZINE, it may be of interest to remind geologists of the occurrence of the *Clymenia* limestone at Lower Dunscombe, above the *Goniatites intumescens* stage. The highest bed the Professor appears to have observed at Lower Dunscombe was the flaggy limestone with *Goniatites*. Want of time prevented my collecting from this part, and the short list in my paper is from the thicker-bedded limestone a few feet lower. In the field above, however, which, at the time I examined it, was newly ploughed, there was a quantity of shaly or nodular limestone, full of *Clymenia* (*C. valida* and *C. striata*).¹

This discovery of the *Clymenia* stage in South Devon is due to Mr. Etheridge, who determined the fossils. CLEMENT REID.

DESCRIPTIONS OF THE FOSSILS FROM SUMATRA. ADDENDA ET CORRIGENDA.

[See GEOL. MAG. 1879, Decade II. Vol. VI. pages 385, 441, 492, and 535.]

- I. The fossils, Nos. 1-4, pp. 386, 387, are from the Carboniferous Limestone of Sibelaboe, Highlands of Padang.
- II. *Sparganolithes gemmatus*, Pl. X. Fig. 4, is from the shale above the second coal-seam of Soengei-Doerian,² Highlands of Padang ; Eocene, 2nd stage.
- III.—The following twelve fossils are from the Limestone with Orbitoides and Corals at Batoe Mendjoeloe, Highlands of Padang ; Eocene, 4th stage, equivalent to stage γ of Borneo :—

<i>Cardita</i> , sp.	Pl. X. Fig. 6.	<i>Cypræa subelongata</i> .	Pl. XII. Fig. 3.
<i>Lucina</i> , sp.	" " 7.	<i>Cerithium</i> , sp.	" " 4.
<i>Pecten</i> , sp.	" " 12.	<i>Turbo Borneensis</i> ?	" " 5.
<i>Cidaris</i> , sp.	" " 17.	<i>Phasianella Oweni</i>	" " 6.
<i>Conus</i> , sp.	Pl. XII. Fig. 1.	<i>Trochus</i> , sp.	" " 7.
<i>Conus substriatellus</i> .	" " 2.	<i>Prenaster</i> , sp.	" " 8.

- IV. All the other sixty-five fossils are from the marls of the Island of Nias, probably of Miocene (late Miocene) age.
- V. The *Cardita Sumatrensis*, Pl. X. Fig. 5, is also from the Nias marls or clays, and not from the clay-bed associated with the coal of the 2nd stage, Eocene.

R. D. M. VERBEEK.

PROFESSOR MILNE ON VOLCANOS.

SIR,—When Professor Milne was writing his article on the distribution of Volcanos I happened to say to him pretty much what is contained in Mr. Fisher's letter in your last number. His answer was—"I wish to keep myself from committing the common error of many geologists who know a little mathematics, the error of imagining that I can create a mathematical theory for a phenomenon, when I am only acquainted with part of the cause of the phenomenon. On the supposition that rock is always of the same conductivity, we may find that an isothermal surface is probably one thousand feet

¹ GEOL. MAG. Dec. II. Vol. IV. p. 454.

² See GEOL. MAG. Dec. II. Vol. II. p. 480.

deeper beneath the bottom of the sea than it is beneath the surface of dry land. But the rigidity of rock is not merely a function of temperature; it probably increases if the pressure increases, as we see from all the meagre information in our possession. Thus we know that solid rock probably sinks in melted rock, and that, therefore, pressure raises its melting-point. Again, we know that the interior of the earth is probably at an enormously high temperature, and yet Sir William Thomson tells us that on the whole it is more rigid than glass. I have good reason for believing, therefore, that as the pressure on an isothermal surface beneath an ocean is much greater than on the same surface beneath dry land, a surface passing through all points where the rock is equally rigid or equally strong to resist tensile stresses, and which is the surface I really have to deal with in my paper, would probably be several miles deeper off the coast of Japan than it is directly underneath dry land." In my ignorance I cannot give with sufficient fullness the clear reasoning of my friend; but as what I have given seems to be a suitable reply to Mr. Fisher's letter, I must beg you to insert it, since Mr. Milne is too far away to reply for himself.

JOHN PERRY.

SCIENTIFIC CLUB, 18th May, 1880.

OBITUARY.

PROFESSOR K. A. L. VON SEEBACH.

BORN AUG. 13TH, 1839; DIED JAN. 21ST, 1880.

KARL ALBERT LUDWIG VON SEEBACH was born at Weimar, August 13th, 1839. When eight years of age, his father, Chamberlain Major von Seebach, placed him at Keilhau, near Rudolstadt, where, under the teaching of MM. Barop and Middendorf, he passed six happy years. In 1853 he returned to Weimar, and entered the Public Gymnasium under the direction of Hermann Sauppe. Here he enjoyed the advantage of good classical teaching, and at home acquired from his father the love of physical science. Major von Seebach had been a special favourite of the aged Goethe, who had given him a small collection of minerals with a catalogue in his own handwriting; this gave the young officer his first impulse in pursuit of science. Goethe's collection, augmented by the father for the benefit of his son, was by the youthful Seebach united to a series of geological and palæontological specimens; the whole of these treasures, at a later period, were presented to the Göttingen Museum. While still at school he wrote his first scientific paper, "The Entomostrea of the Thuringian Trias," which appeared in the *Zeitschrift der Deutschen geologischen Gesellschaft* (Jg. 1857). His varied attainments proved that scientific investigations had taken a firm hold on his mind; and when leaving in 1858, the highest certificate was bestowed on him by the Governors for his general excellence.

After his exertions at school and his rapid growth, a very wholesome year of mining at Kamsdorf, near Saalfeld in Thuringia, followed. He still further improved his scientific taste by an academic course, and at Easter, 1859, he began to study with Prof. Ferdinand