

a 'platform' at 1,000 feet above sea-level. In my paper on the Arran Granite (Trans. Geol. Soc. Glas., vol. x, p. 216) I notice the immense denudation that had taken place in Arran when the sea worked at 600 to 1,300 feet above present sea-level, and give sections. I also note the fact that all the glens (with one notable exception) occur in synclines of the granite slabs, and all the mountains have the slabs arranged as anticlines or quaquaversal dips (with one exception). I have also shown by a diagram that the slabs dip all round the granite area (which is nearly circular) at from 15° to 45° towards the slate, and give what I consider to be an explanation of these features. I also note the principal glacial phenomena, the thickness and quality of the Boulder Drift, moraines, etc., and how the drift had been carried *all round the granite area* on to the slate. I may say here that I saw no boulders foreign to the island on the granitic area, which is about 41 square miles. I do not, of course, suppose that all the immense denudation noted above took place during the Glacial Period—probably only a very small part of it. It is my firm opinion that the slate partly filled what are now the valleys at one time, and being more easily denuded than the granite this gave the original direction to the valleys or glens. In other papers I have shown that there is no Arran Granite in Ayrshire, except small bits along the shore which may have been brought as ballast.

J. SMITH.

DYKES, DALRY, AYRSHIRE.
May 6, 1916.

OBITUARY.

LIEUT. R. L. VALENTINE, 7TH BATTALION ROYAL DUBLIN FUSILIERS, GEOLOGIST ON THE GEOLOGICAL SURVEY OF IRELAND.

BORN APRIL 16, 1890.

DIED APRIL 30, 1916.

LIEUT. R. L. VALENTINE, of the 7th Battalion Royal Dublin Fusiliers, who died from wounds in France on April 30, 1916, was born on April 16, 1890, at Portora School, near Enniskillen, where his father was classical master. He was educated at the High School, Dublin, and gained a scholarship in the Royal College of Science for Ireland, receiving the Associateship of the College in 1912. He especially devoted himself to natural history and geology, and was engaged on a research in 1913–14 as to the horizon of the lowest Avonian strata at Hook Head, co. Wexford. He obtained by competition the post of Geologist on the Geological Survey of Ireland, and completed the Civil Service qualifying examination while in military training at the outbreak of the War. He gave high promise of becoming prominent amongst scientific men in Ireland, and his unflinching cheerfulness and readiness of resource endeared him to those who looked forward to working with him as a colleague.

G. A. J. C.