

factions has been denied, and our author has been challenged to produce a *single* petrification in the Grauwacke of Dumfriesshire. To us, who know perfectly well that vegetable petrifications are very common in that Grauwacke, this challenge appears not a little bold." Thus far the reviewer. He seems to have observed for himself, but not very correctly. Mr. Harkness tells us, in a paper which appeared in the "Geological Journal" for 1851, that though the Dumfries Grauwackes contain their thick bands of anthracite, of apparently vegetable origin, there has been detected in them no vegetable remains whatever. They abound, however, in graptolites; and it was probably these leaf-like zoophytes, whose nature is still so imperfectly understood, that caught the eye of the reviewer, and constituted his "vegetable petrifications." The Grauwacke of Scotland does, however, contain vegetable impressions apparently fucoidal; though they are far from common in any of the rocks which I have yet seen, and yield no characters by which they can be distinguished from the simpler fucoids of the Old Red Sandstone. In one of the specimens now on the Society's table, derived from the shales of Girvan, there occurs a fucoidal stem of this latter description, associated with graptolites of the double-sided genus *diprion*,—a genus never found, it is said, save in the Lower Silurian.

In 1808, Professor Jameson published that third volume of his "System of Mineralogy, in which he fully developed his geological views, and described in language that has since become obsolete, the character and order of succession of the various formations. The work, however, added nothing to the previous knowledge of our Scotch Grauwacke, save perhaps, a very curious hypothesis regarding its convoluted strata, framed evidently to meet the theories of Hutton and Sir James Hall. "Very striking curvatures sometimes oc-