area of the North Atlantic,¹ the subject was mentioned and the supposed source of error pointed out; and since then Mr. Schmelck has been good enough to forward me a memorandum of an independent analysis of *Biloculina*, made by himself, which is as follows:—

Carbonate of lime,			•	•	•	•	92.05
Insoluble in hydrochlor	ric acid,	•	•	•	•	•	7.61
							00.66
							99.0

The difference between the various genera of *Miliolininæ* is purely morphological, and, chemically speaking, whatever is true of one is pretty sure to apply in a greater or less degree to all. It is therefore interesting to remember in connection with the presence of silica in *Biloculina*, that at certain Stations in the abyssal area of the North Pacific and elsewhere, manifestly unfavourable to the existence of calcareous organisms, *Miliolininæ* are occasionally found, the tests of which are scarcely affected by acids, the normal calcareous shell being partially or sometimes wholly replaced by a thin, translucent, siliceous investment.

It is well known of course that some few species of *Miliolina* are normally encrusted with siliceous sand; but the porcellanous forms to which reference has been made are such as have white calcareous shells with polished exterior, and thin sections of the test exhibit a perfectly homogeneous texture.

	5				I.	п.	111.	IV.
Silica,	•	٠	•		0∙58	0.3	0.14	0.11
Carbonate of lime,		٠	•		86.46	88-2	88·74	87.91
Carbonate of magnesia,	٠	•			12.52	8.8	9.55	10.50
Alumina, with phosphates of lime and magnesia,						2.7	·	
Alumina and ferric oxide,	•	•	* •	.	0.68			
				ĺ	100.24	100.0	98·43	98.52

Orbitolites complanata, var. laciniata.

Of the more complex *Porcellanea* the genus *Orbitolites* has naturally been selected for chemical examination; not only on account of the size of the specimens, but because of the abundance and importance of the type as a constituent of the coral-reef fauna. The separate analyses of two specimens of *Orbitolites complanata*, var. *laciniata*, gave the somewhat different results recorded in Columns I. and II. of the preceding table. A number

¹ Norwegian North Atlantic Expedition, 1876-1878. Chemistry.—II. On Oceanic Deposits, by Ludwig Schmelck. Christiania, 1882.