point of the Tionfolokker Islands, were the richest in new species and number of specimens obtained during the cruise, siliceous Sponges, Corals, Pennatulids, and Echinoderms being especially abundant.

The deposit at this Station was also of considerable interest. The sounding tube brought up specimens of a blue mud, containing about 10 per cent. of carbonate of lime, and in the trawls, besides pumice stones, were several large concretions or fragments of a calcareous rock, differing very considerably from the deposit.

The Concretions were of two kinds. First, many more or less rounded agglutinations loosely held together, and from 1 to 7 centimetres in diameter. Second, several large honeycombed pieces of rock, several decimetres in diameter, and requiring a sharp blow from a hammer to break them.

Those belonging to the first variety are grey or brown, sometimes slightly greenish, granular, and it can be seen with the lens that they are essentially composed of Foraminifera. An examination of thin sections of these nodules shows that they are agglutinated or coagulated by an argillo-calcareous cement which is not in great abundance. Some of the shells are entirely filled with pale green glauconite, others only partially. The intervals between the shells are not filled up with the cementing matter, and appear to be the first phase of agglutination.

Those of the second variety are very irregular in shape, and consist of large pieces of a hard rock traversed in all directions by large and small perforations, with a diameter varying from 1 to 4 centimetres. These blocks have thus a cavernous or coarse cellular appearance. The perforations are covered, like the surface of the rock, with organisms, as Sponges, Polyzoa, &c., and rough to the touch; the smaller perforations have sometimes the appearance of having been produced by lithophagous Molluscs. These concretions have the hardness of calcite; the freshly broken fragments are white-grey. A microscopic examination shows that they are mainly composed of various species of pelagic Foraminifera. Treated with weak acid the concretions decompose with effervescence, leaving a residue of 20·44 per cent., the rest being carbonate of lime. The residue is essentially composed of argillaceous matter, together with a few grains of felspar and quartz, and glauconitic casts of the Foraminifera, these last being brown or green and feebly transparent. The greenish casts present most of the characters of true glauconite. Examined with the microscope in thin sections, the Foraminifera composing the rock are seen to be the same as those in the first variety and also in the muds of the same region; mixed up with these are fragments of Echinoderms, &c. They are sometimes filled with greenish glauconite, but more generally with a semi-opaque greyish matter which constitutes the cement of the various elements of the rock, and must be considered as impure carbonate of lime. It has a slightly opaline aspect, is homogeneous under low powers, but with higher powers a fine granulation can be seen which the