group. In this figure only one crossed twin is seen; the other groups are formed sometimes by two microliths crossing each other at variable angles or juxtaposed, sometimes by three or four little crystals superposed one above the other, while in certain groups there is a tendency to affect a spherolithic or radiated disposition around a centre. Finally in some cases the spherolithic structure is more perfect, as will presently be pointed out when describing the spherolithic globules formed by radiate crystals of phillipsite, which are very frequent in the deep-sea deposits already indicated.

We may recall the fact that this globular or spherolithic disposition is to a certain extent characteristic of several species belonging to the group of zeolites; mention may be made of the crystalline botryoidal masses lining the hollow cavities of certain altered volcanic rocks. In this case the crystals are supported on the rock, while in the case of the globules of phillipsite the little groups of radiated crystals are formed in a free state in the mud. In the aggregate of crystals represented in Pl. XXIII. fig. 6 the grouped microliths are seen pressed the one against the other, as if they came from a geode. A cosmic spherule, on falling upon the bed of the sea, has been enclosed in this agglomeration of little prisms, and has been entangled among zeolitic crystals.

The spherules now to be described are of the same mineral nature as the isolated microliths, twins, or groups previously spoken of, but they are larger, being distinguishable by the naked eye or with the aid of a lens. When the various elements of the mud are separated by decantation or by means of dense liquids, such as the iodide of mercury and potassium, the most numerous particles observed are grains resembling a ferruginous sand. These grains are often spherical, and with the aid of a good hand-glass they are seen to be terminated at the surface by slightly-reflecting crystalline facets. They are always soiled by argillaceous mud and coatings of iron and manganese. The mean diameter of these spheroliths is about 0·5 mm., though in some cases they may attain a diameter of 2 mm. In reflected light under the microscope the facets, at the surface of the globules, are seen to be those answering to the two prismatic faces ∞P of simple individuals, or to the four faces of individuals twinned following the law already referred to. Pl. XXIII. fig. 3 represents one of these spheroliths, magnified 20 diameters, as seen by reflected light. Mounted in Canada balsam or copal, the spherules can be rubbed down, and become sufficiently transparent to be submitted to microscopic examination by transmitted light, when it is seen that they are made up of little radiating microliths of phillipsite. Pl. XXII. fig. 3 represents a spherule cut approximately through the centre, showing precisely the internal structure of these zeolitic balls. It is surrounded by a deep brown or red-brown coating of manganese, while all round the figure are agglomerated mineral particles of the deposit traversed by dendrites of manganese. Among these particles are little irregular colourless fragments of minerals of volcanic origin or debris of organisms. The crystals composing these spheroliths become thin towards the centres of the globules, and there terminate in an acute angle following the