

symptoms which, to one suddenly aroused from sound sleep, recalled the appalling fate of the former barrack, which had been engulfed in the foam not twenty yards from our dwelling, and for a moment seemed to summon us to a similar fate."

The foundation-stone of the tower was laid on July 7, 1840, by the late Duke of Argyll, who, as proprietor of the adjacent Island of Tyree, took a great interest in the success of the works, and granted to the Commissioners free permission to quarry granite on any part of the Argyll Estate—a freedom which was generously continued by the present Duke of Argyll. The light was exhibited for the first time in February, 1844. It is a revolving light, and reaches its brightest state *once every minute*. It is produced by the revolution of eight great annular lenses around a central lamp with four wicks, and belongs to the first order of Dioptric lights in the system of Fresnel. The light may be seen from a vessel's deck at a distance of eighteen miles. The entire cost of the lighthouse—including the purchase of the steam-vessel, and the building of the harbour at Hynish for the reception of the small vessel (which now attends the lighthouse)—was 86,977*l.* 17*s.* 7*d.*

*Life in a Drop of Water.*—It is almost impossible, without numerous and accurate drawings, to give to the general reader anything like an idea of the singular forms of the microscopic world; of their structure and their transformations. Some are oval, some spherical; others resemble various objects natural and artificial, such as different kinds of fruit, eels, worms, serpents, crabs, and molluscs, wheels, cylinders, bottles, funnels, &c. Their coverings are either soft and membranous, like leeches; or hard, like horn or shell. When hard, the covering is sometimes composed wholly of silica, or flint; and sometimes of carbonate of lime, or marble. These shell-coverings, or *loricæ* consist of two or more valves, which in the bacillaria are finely grooved, and sometimes covered with spines or knobs. When the covering is *gelatinous* or soft, it has often the shape of a bell-glass, a cone, or a cylinder, with an opening to allow the animal to protrude. Within this case it reproduces itself, the case continuing till the covering bursts, and allows the young to escape.

The Phytozoa, generally speaking, live in fresh water, and are the most abundant and widely diffused of created beings. The greater number of them are found in infusions, and in fluids in the act of decomposition, while others live only in pure water. They are propagated with great rapidity, and when accumulated they give different colours to the water. Some give it a blood-red colour. Some form blood-red spots in bread and in meat, and others produce the phenomenon of red snow. A green colour is produced by a great number of these animalcules.

The *Monadinae*, or monads, are the smallest of created beings—some of them (the *monas termo*) being only the 6000th, and others the 1200th part of an inch, so that they require a magnifying power of about 500 to exhibit their structure. They are supposed to be nothing more than the simplest stage in the existence of many animal and vegetable organisms. The *monas* is a round glutinous substance, and is generally colourless, though sometimes green, yellowish and redish. It is one of the most common organisms in infusions of animal and vegetable matter. Its organ of locomotion is a filiform proboscis.