

the former, and upon the nutritive substances prepared by it. The green cells, containing chlorophyll (gonidia), which are found in every lichen, belong to the Alga. But the colourless threads (hyphæ) which, densely interwoven, form the principal mass of the body of Lichens, belong to the parasitic Fungus. But in all cases the two forms of plants—Fungus and Alga—which are always considered as members of two quite distinct provinces of the vegetable kingdom, are so firmly united, and so thoroughly interwoven, that nearly every one looks upon a Lichen as a single organism.

Most Lichens form small, more or less formless or irregularly indented, crust-like coverings to stones, bark of trees, etc. Their colour varies through all possible tints, from the purest white to yellow, red, green, brown, and the deepest black.

Many lichens are important in the economy of nature from the fact that they can settle in the driest and most barren localities, especially on naked rocks upon which no other plant can live. The hard black lava, which covers many square miles of ground in volcanic regions, and which for centuries frequently presents the most determined opposition to the life of every kind of vegetation, is always first occupied by Lichens. It is the white or grey Lichens (Stereocaulon) which, in the most desolate and barren fields of lava, always begin to prepare the naked rocky ground for cultivation, and conquer it for subsequent higher vegetation. Their decaying bodies form the first mould in which mosses, ferns, and flowering plants can afterwards take firm root. Hardy Lichens are also less affected by the severity of climate than any other plants. Hence the naked rocks, even in the highest mountains—for the most