

Geography at the head of the sciences essential to the happiness and power of human-kind.

PECULIARITIES IN THE VEGETABLE KINGDOM.—

The difference between animals and vegetables is so great, that, on a superficial view, we do not perceive any resemblance between them. Some animals only live in water; others on the earth or in the air; and some are amphibious, or capable of living either on land or in water. And this is literally the case with vegetables; some of them only grow upon land, others in the water; some can scarce bear any moisture; others either live in earth or water; and some even are found that exist in the air. There is a tree in the island of Japan, which, contrary to the nature of all other trees, to which moisture is necessary, cannot bear wet. As soon as it is watered it perishes; the only way to preserve it in such a case, is to cut it off by the root, which is to be dried in the sun, and afterwards planted in a dry and sandy soil. A peculiar species of mushroom, some mosses, and other small plants, float in the air; but what is still more extraordinary, a bunch of rosemary, which, as is the custom of some countries, was put in the hand of a corpse, sprouted out to the right and left so vigorously, that after a lapse of some years, the grave being opened, the face of the defunct was overshadowed with rosemary leaves.

The vegetation of the truffle is still more singular; this extraordinary tubercle has neither roots, stem, leaves, flowers, nor seeds; it derives its nourishment through the pores of its bark. But it may be asked how is it produced? Why is there commonly no kind of herb in the places where this species of mushroom grows? and why is the land there dry and full of crevices? These things have never been explained.

It exists in all seasons, even in winter; but is never so abundant as after rain in summer. The most remarkable circumstance about it is its speedy growth, being formed almost instantaneously: for sometimes, if we walk in the garden in summer, not a trace of it is seen; when a sudden shower of rain falling, if the same place is visited in an hour, the walks are entirely covered with it. The nostoch was long supposed to have descended from the sky; but it is now known to be a leaf, which attracts and imbibes water with great avidity. This leaf, to which no root appears to belong, is in its natural state when impregnated with water; but a strong wind or great heat soon dissipating the water, the leaf contracts, and loses its colour and transparency; hence it appears to grow so suddenly, and to be so miraculously produced by a shower of rain; for when the rain falls upon it in its dried and imperceptible state, it becomes reanimated, and appears a fresh production.

We might readily enlarge the list of plants which bear a resemblance to animals; but there are other peculiarities in vegetables which solicit our attention. The whole atmosphere is predated with plants and invisible seeds, and even the largest grains are dispersed by the wind over the earth; and as soon as they are transported to the places proper for them to germinate in, they become plants, and often so little soil is necessary for this purpose, that we can scarcely conceive whence they derive the necessary degree of nourishment. There are plants, and often trees, which take root and grow in the clefts of rocks without any soil whatever.

Vegetation is sometimes very rapid; of which we have instances in mushrooms, and the common cresses, the seed of which, if put into a wet cloth, will be fit for a salad in 24 hours. There are plants that exist with scarcely any perceptible vitality. We often see willows, which are not only hollow and decayed within, but their external bark is so much injured that very little of it remains; yet from these seemingly sapless

trunks buds sprout in the spring, and they are crowned with leaves and branches. It is truly wonderful that plants should not only imbibe nutriment by their roots, but that their leaves also should assist in this important function, by inspiring air; and an inverted tree will flourish, as well as when in its proper situation, for the branches will grow in the earth and become roots.

The advanced age that some trees attain to, is also very remarkable. Some apple trees are above a thousand years old; and if we calculate the amount of the annual produce of such a tree for the above space of time, we shall find that a single pippin might supply the whole world with trees and fruit. So extensive is this subject, that to follow it through all its ramifications would lead us on much too far for our present limits. All nature teems with wonders, every thing leads us on to an infinitely perfect Being, whose power, united to boundless wisdom and goodness, is continually acting for our benefit, and daily giving us fresh cause for gratitude and admiration.

How great and magnificent are Thy works. O Lord! What wonders crowd upon my mind! I view them with rapture, and am lost in the contemplation; they surpass my comprehension; I cannot fathom them. At Thy command the grass shoots forth its green blade, and the woods are clothed with verdure; the flowers adorn the fields and beautify the gardens with their glowing colours; the tree lifts up its tall head to the clouds, and the mountain cedar declares Thy glory! Wherever I turn my view, new wonders delight me: the meadows, the mountains, and the valleys, the rivers, the seas, and all, from the least atom to the distant spheres in the heavens, declare Thy goodness and display Thy glory!

INSTANTANEOUS ICE.—In addition to the extraordinary display of the American plants in full bloom at the gardens of the Royal Botanic Society on Saturday last, another very curious exhibition was presented; ice-making, under the direction of Mr. Masters, the well known confectioner in Regent-street. A large assemblage of the fashionable visitors manifested great curiosity as to the means by which Mr. Masters kept continually producing ice creams, and even solid blocks of ice, as instantaneously as a cook will produce egg-flip. We heard many exclaim that it was incredible that the delicious ices, with which they were refreshing themselves, could have been produced by machinery without the aid of natural ice. Ocular demonstration of the fact, however, was given to all who could get within the magic ring of Mr. Masters's refrigerators, or freezing apparatus. The invention is constructed in a great variety of forms, some of which show remarkable mechanical ingenuity, and are, at the same time, highly ornamental. They vary in size. With one of the larger apparatus a quantity of ice may be produced in about twenty minutes sufficient to supply a party of 300, by simply causing a chemical mixture to be dissolved in water, and mechanically agitated in the apparatus till ice is produced in a chamber containing the fluid to be frozen. The chemical mixture it also the invention of Mr. Masters, and, as an article of commerce, is not more expensive than rough ice. Rough ice, however, can be used in this apparatus, whenever it can be obtained at less expense, as a substitute for the mixture. The portability of the mixture gives it a decided advantage over natural ice, where an ice-well is not at hand, as in tropical climates, for the mixture is not affected by heat, or atmospheric changes. One form of the invention seems well calculated for family use. In shape it resembles an elegant flower vase, and is in size about twice the dimensions of the ordinary wine bottle, while its cost is, remarkably moderate. With this small apparatus, which a child can manage, we saw