

forest, under which Wallace first gathered his followers in arms, are as worthy and enduring memorials of great names and deeds, as any that can be hewn from the rock and built by the hands of men. The tower, as soon as it is completed, begins to decay; the tree, from the moment when it is planted, grows firmer and stronger for many an age to come."

After making valuable remarks on the transplanting of trees, the following eloquent passage occurs:

"Besides the importance of the study just alluded to, it is a delightful one: even for those who have no practical acquaintance with trees; it contains some of the most wonderful marks of design and preparation, of Divine creative skill and seemingly intelligent action, where there is no mind within to direct it, which can be found in any part of nature, eloquent and ample as it is in its testimony to Him who made it. We shall not enter into the comparison between the properties of plants and the instinct of animals, our knowledge of both being quite too imperfect; but to us, whether from accidental prejudice or not, we cannot say, none of the contrivances of the animal world seem so surprising, as the manner in which vegetables, confined as they are to a single spot, are able to gather food for their subsistence, to protect and restore themselves from injury, to prepare for all the changes of season and climate, and at the same time to exert a constant action for the benefit of man, and in fact of all nature. The root, for example,—nothing can be more surprising than the manner in which it forms itself and spreads, so as to give the tree precisely the support and subsistence which it requires. If the soil or season be dry, it increases its nourishment by throwing out more fibres. The fibres themselves turn and move in the direction where moisture is most readily found, so that in the well-known instance of the plane-tree mentioned by Lord Kaimes, the roots actually descended the wall from a considerable height, in order to find subsistence in the ground below. The fibres continually suck from the soil with their spongy mouths water impregnated with whatever substances the tree requires; and even after the stem is dead, they continue this action for a time, that the gathered moisture of the roots may accelerate their decay. The manner in which the stem rises and hardens itself to resist the elements, is equally striking. The new wood of the sapling is compressed by the new layer which covers it in each succeeding year, being thus compelled to shoot upwards, and at the same time to grow firm and strong. While the wood is thus formed by accessions from without, the bark increases by layers from within, which swell it till it bursts, and becomes the rough external garment of the tree. The new layers of wood contain the channels through which sap is conveyed to the leaves, like blood to the lungs of man. The leaves, formed of the fibres of the stem spread out and connected by a delicate net-work of green, are filled with veins and arteries, through which the life-blood flows. They are formed in the summer, to expand in the following year; packed up in their buds with wonderful neatness and precision, covered with brown scales to preserve them from the frosts of winter, and, if need be, coated with varnish, which excludes the air and moisture through the