

in separate specimens. I brought with me one specimen in which there is a single layer nearly half an inch in breadth, and another in which, in no greater space, there occur fourteen different layers. The tree to which the one belonged must have been increasing in bulk fourteen times more rapidly than that of the other. Occasionally, too, we find very considerable diversities of size in the layers of the same specimen. One year added to its bulk nearly half an inch ; in another it increased scarce an eighth part. Then, as now, there must have been genial seasons, in which there luxuriated a rich-leaved vegetation, and other seasons of a severer cast, in which vegetation languished. My microscope, a botanist's, was of no great power ; but, by using its three glasses together, and carefully grinding down small patches of the weathered wood till it began to darken, I could ascertain with certainty, from the structure of the cellular tissue, what, indeed, seemed sufficiently apparent to the naked eye from the general appearance of the specimens, that they all belonged to the coniferæ. When viewed longitudinally, I could discern the elongated cells lying side by side, and the medullary rays stretching at right angles across ; but my glass lacked power to show the glandular dots. When viewed transversely, the regularly reticulated texture of the coniferæ was very apparent. A bluish-grey limestone adhered to some of the specimens, and bore evidence in the same track. It abounded in cones and fragments of cones, in what seemed minute needle-shaped leaves, and in thin detached pieces of bark, like those which fall off in scales from the rind of so many of the coniferæ. The limestone bore also its frequent fragments of fern. There seemed nothing lacking to restore the picture. There rose before me a solemn forest of pines, deep, shaggy, and sombre ; its opening slopes and withdrawing vistas were cheered by the lighter green of the bracken ; and far beyond, where the coast terminated, and the feathery tree-tops were relieved against the dark blue of