

the annual rings of *Peuce Eiggensis* and *Peuce Lindleiana* are as regularly and strongly marked as those of the Scotch fir or Swiss pine ; nor, be it added, are they of larger size. In one specimen of our collection, but in one only, the rings average nearly a quarter of an inch in breadth ; the tree added in a single twelvemonth almost half an inch to its diameter : but the specimen is an exceptional one. In the others they average from about a line to an eighth part ; and in one specimen no fewer than twenty-eight rings occur in the space of an inch. The slow-growing tree, of which it formed a portion,—sluggish in its progress as a Norwegian pine on some exposed mountain-side,—added only half an inch to its diameter in *seven* years. The unit here tells certainly of no rapid development of life, but, on the contrary, of a development quite as tardy as that of the present age of the world in latitudes as high as our own ; and, though we cannot decide with the same certainty respecting the rate of growth in the animals contemporary with those trees, we may surely most naturally infer that ostrea of some ten or twelve layers, or gryphites (extinct members of the same family) of some fifteen or twenty, could not have been very young ; that as the ammonite, though thinly walled, was as solid in its substance as the nautilus, and had a great many more chambers, which were added to it piecemeal, one at a time, it could not have been of much quicker growth ; and that, as the internal shell of the belemnite was much more ponderous than that of its successor the cuttle-fish, it must have attained to maturity quite as slowly. Further, not only can it be demonstrated that ivory teeth were every whit as dense in those ages as they are now,—a remark that applies equally to the later palæozoic periods,—but it can be shown also, that some of these teeth were as sorely worn as in existing animals when very old. In short, the evidence that life, animal and vegetable, existed on the farther side of the Tertiary geologic periods