cause of its death. So, too, the *post mortem* examination of a tree can be of no value for any other purpose; except it be to find a rule for ascertaining its age, and thereby the ages of living trees of the same species; or to find a rule for determining the rate per annum at which they may be expected to continue their enlargement until they reach the ultimate term of their lives.

But assuming it to be true, that the number of the concentrical rings observed in the trunk of a tree, do always exactly correspond with the number of years of its age, then at least one important step would seem to have been made by such *post mortem* examinations towards ascertaining the ages of trees in general; as for example, if by the felling of an oak of thirty-four inches in diameter, it should be found to have two hundred concentric layers; and, consequently, to be two hundred years old; and so to have increased in diameter at the rate of one-twelfth part of an inch annually; and then, assuming it to be true, that all the immediately adjacent and similarly situated oaks had increased in diameter at the same average annual rate; it follows, that the age of every living oak in a similar soil and exposure, might from the measurement of its circumference, be exactly ascertained by a *post mortem* examination of any one, and so of every other species of trees. Let us follow out this hypothesis, and see to what it will lead.

It has been found, that a larch tree, in England, will, under favourable circumstances, increase, until fifty years of age, at the rate of half an inch annually in diameter; and that some elms, planted in France in the year 1580, if what is said of their circumference be correct, had increased at the same rate in diameter until two hundred and forty years of age. (*t*) But it has been observed, that the latter concentrical layers of wood in an oak of no more than two hundred years of age, were so much thinner than those of its youth, as to be scarcely distinguishable; and that other kinds of trees, known to be of rapid growth in early life, have been found, by actual measurement, after they had attained a considerable age, to have remained nearly of the same circumference during the lapse of twenty years. (*u*) Therefore, after allowing

(*t*) 2 Mich. Am. Sylva, 225. 'Several elm trees, said to have been planted in the public green at New Haven, in Connecticut, in the year 1688, were standing in the year 1838, and then measured about fourteen feet in circumference; which gives an increase of diameter at the rate of about the half of an inch annually.'—*The Globe newspaper, published at Washington, 21st September*, 1838.

(*u*) 1 Mich. Am. Sylva, 324.