

are dyked in from the sea, they soon become covered with grasses and carices, the seeds of which are supposed to be washed down by streams and mingled with the marine silt; and fragments of grasses abound in the Post-tertiary clays of the Ottawa.

It seems almost ridiculous thus to connect the persistence of the form of a little plant with the subsidence and elevation of whole continents, and the lapse of enormous periods of time. Yet the Power which preserves unchanged from generation to generation the humblest animal or plant, is the same with that which causes the permanence of the great laws of physical nature, and the continued revolutions of the earth and all its companion spheres. A little leaf, entombed ages on ages ago in the Pleistocene clays of Canada, preserves in all its minutest features the precise type of that of the same species as it now lives, after all the prodigious geological changes that have intervened. An Arctic and Alpine plant that has survived all these changes maintains, in its now isolated and far removed stations, all its specific characters unchanged. The flora of a mountain top is precisely what it must have been when it was an island in the glacial seas. These facts relate not to hard crystalline rocks that remain unaltered from age to age, but to little delicate organisms that have many thousands of times died and been renewed in the lapse of time. They show us that what we call a species represents a decision of the unchanging creative will, and that the group of qualities which constitutes our idea of the species goes on from generation to generation animating new organisms constructed out of different particles of matter. The individual dies, but the species lives, and will live until the Power that has decreed its creation shall have decreed its extinction; or until, in the slow process of physical change depending on another section of His laws, it shall have been excluded from the possibility of existence anywhere on the surface of the earth, unless we suppose with