

though partially pyritized. All these examples tend to show the extreme slowness of the process of decay in ordinary vegetable tissues when excluded from the usual conditions of decay by burial in the earth.

The oily tissues of which seeds are composed are still more capable of resisting the tendency to dissolution, and ought certainly to remain unchanged, under circumstances which permit such perfect preservation of ordinary ligneous fibre. The evidences are very conclusive that the seeds of ordinary vegetation may lie dormant in the surface-soil for half a dozen or a dozen years. The seeds of the various "fire-weeds" which spring up on a forest clearing after the brush has been burned off, must have reposed in a latent state during the existence of the forest whose disappearance is the signal for the resumption of their vital activity. The same is true of the seeds of the "old field-pines," which have probably lain for an age or more, awaiting the maturity and destruction of the deciduous forest which usurped the soil. How *many* ages may they have lain there? How many more might they have lain, and still been found ready for the first opportunity to seize a foothold?

There are some facts in our possession which are still more specific. It is well known that Dr. Lindley raised three raspberry plants from seeds discovered in the stomach of a man whose skeleton was found thirty feet below the surface of the earth, at the bottom of a barrow or burial-mound which was opened near Dorchester, England. With the body had been buried some coins of the Emperor Hadrian, from which we are justified in assuming that these seeds had retained their vitality for the space of sixteen or seventeen hundred years. If they remained undamaged that length of time, their condition was practically fixed; and who shall say that ten thousand years would have produced a greater effect?