

CHAPTER XXIII.

VITALITY OF BURIED VEGETABLE GERMS.

I VENTURE here to enunciate a view which to many may appear incredible. For some years past I have been inclined to believe that the germs of vegetation which flourished upon our continent previous to the reign of ice, and many of which must have been buried from twenty to one hundred feet beneath the surface of the glacial rubbish, may have retained their vitality for thousands of years, or even to the present time. There are not a few indications that vegetable germs are capable of such preservation, and not a few that they thus exist in the ancient drift. The consequences of such remarkable preservation possess a geological importance so novel and interesting that I am sure the reader will be pleased with a view of the facts bearing upon the doctrine.

Many familiar facts may be cited which certainly have a significance far greater than has been generally suspected, and which tend to show that the seeds of vegetation are reposing in a dormant state in our ordinary soils and subsoils. Nothing is a more common observation than to see plants making their appearance in situations where the same species was previously unknown, or for a long time unknown, and under circumstances such that the supposition of a recent distribution of seeds is quite precluded.

The sudden appearance of unwonted species frequently occurs when a change is produced in the physical condition of the soil. Left to Nature, certain perennial grasses secure almost exclusive foothold in our fields, and form a