

CHAPTER XXXI.

THE TOOTH OF TIME.

A FEW words about the disintegration of the rocks. As the vital force employs itself in the demolition of the organic structures and the simultaneous repair of all the wastages, so the gigantic energies of geology have busied themselves in one age or place in demolishing the rocky fabrics consolidated with incredible labor in another age or place. The grain of sand upon the rivulet's border may have been incorporated successively into a dozen different formations, each in turn disintegrated to be inwrought in the rocky sheets of the next succeeding age.

Has the reader ever inquired whence came the materials for twenty-five miles of sedimentary strata? It is a question which geology is compelled to answer. The first and lowest great system of strata—the Laurentian—is in Canada thirty or forty thousand feet thick. This system is supposed to embrace nearly the entire globe, passing beneath the Paleozoic, Mesozoic, and Cenozoic strata, and extending, probably with greatly diminished thickness, under the beds of the existing oceans. It must have been accumulated while yet the primeval sea was wellnigh universal. This is the prevalent opinion. It is perfectly plain, however, that these vast beds of sediment must have had an origin in pre-existing rocks lying within reach of the denuding agencies of the time. How enormous a bulk of solid rocks was ground to powder to furnish material for these Laurentian strata may be imagined when the reader is reminded that the mean elevation of North America is