

will be rendered intelligible to all by the explanations in the text.

There seems to be but little poetry in the attempt to unravel the thread of chemical reactions which followed each other upon the earth in those dim and twilight ages; but it is certainly an inspiring development of late researches that the sceptre which chemistry sways over the modern world is the same which she wielded over the mute atoms of the forming crust.

It appears, from what has been suggested, that a portion of those ancient strata originated from sediments mechanically deposited, and another portion from chemical precipitates thrown down while the elements were adjusting themselves according to their strongest affinities.

The reader should not imagine that the proofs of these things are afar off. They lie within the scope of his own observation and verification. If you can not gaze upon the frowning summit of Katahdin, or the dark and lichen-covered sides of the Adirondacs, nor the upturned piles of stony lumber which make the ridges of the Appalachians, nor the acres of rocky floor torn up for your inspection along the shores of the upper lakes, examine some of the specimens which Nature has brought from those northern regions to your very doors. Scattered over your fields may be found fragments of the underlying unstratified granite and sienite, diorite and dolerite. Here, too, are fragments of rocks formed of the same constituents as these, but under a stratified arrangement. The most striking of these are the gneisses, where the various colored minerals set forth the stratification with distinctness. These came from the thick beds resting upon the crystalline foundation of the earth's crust. They are the ruins—a second time ruined—of some ancient rocky shore which the fury of the elements has reduced to sand. Here are