tensive to prevent cessation of these operations. And so we may anticipate that it will be for many geological ages yet to come. Elevation of land will repair what has been lost by superficial waste, and subsidence of sea-bottom will provide space for continued growth of sedimentary deposits.

Section iii. Life

Among the agents by which geological changes are now, and have in past time been effected upon the earth's surface, living organisms take by no means an unimportant place. They serve as a vehicle for continual transferences from the atmosphere into the mineral world, and from the mineral world back into the atmosphere. Thus they decompose atmospheric carbon-dioxide, and in this process have gradually removed from the atmosphere the vast volumes of carbon now locked up within the earth's crust in beds of solid coal. By their decomposition, organic acids are produced which partly enter into mineral combinations, and partly return to the atmosphere as carbon-dioxide. Plants abstract from the soils silica, alkalies, calcium-phosphate, and other mineral substances, which enter largely into the composition of the hard parts of animals. On the death and decomposition of animals, these substances are once more relegated to the inorganic world, thence to enter upon a new circulation through the tissues of living organisms.

From a geological point of view, the operations of organic life may be considered under three aspects—destructive, conservative, and reproductive.

§ 1. Destructive Action

Plants in several ways promote the disintegration of rocks.

1. By keeping the surfaces of rocks moist, plants pro-