

Mosses insert their tiny rootlets and open the way for other agents. Larger plants, by the power of their growing roots, wedge off pieces of rock, and so promote chemical solution. The unequal expansion of different minerals when subjected to the heat of the sun has a disintegrating effect. Most powerful of all these influences is that exerted by freezing water. All rocks absorb a little moisture, and those that are porous or fissured are particularly susceptible to the destructive effects of frost. The angular blocks on every mountain slope attest the power of this agent.

Abrasion also promotes disintegration and consequently decay. Running water rolls the broken rocks over and over, wearing off the angles and gradually reducing them to sand and gravel. The shore ice of rivers, lakes and seas often surrounds large stones, and driven by the wind or current, abrades both them and the shore. Still more potent was the ice-sheet which at one time covered Canada, as it does Greenland to-day. This mantle of ice moved slowly downward from the Laurentian heights, carrying in it and under it great blocks of granite and other igneous rocks which, pressed against the underlying ones, were slowly ground to pieces. Abrasion, disintegration and chemical change have thus transformed the barren rocks into fertile soil.

Classification.—In accordance with their origin two classes of soils are recognized, sedentary soils and transported soils. The first class are comparatively rare in North America north of the