

disengagement of hot noxious vapours, steam, and inflammable gasses, it is impossible to doubt their direct relation-ship and mutual dependance upon one grand phenomenon, a prevailing high temperature in the interior of the earth at an unknown distance from the surface. Thermometrical experiments made in mines show that at a certain depth the thermometer rises and goes on rising proportionably to the depth descended. Baron Humboldt finely records the peculiar impression produced by earthquakes experienced for the first time: "From early childhood we have been habituated to the contrast between the moveable element water and the immovability of the soil on which we stand. All the evidences of our senses have confirmed this belief; but when suddenly the ground begins to rock beneath us, the feeling of an unknown mysterious power in nature coming into action and shaking the solid globe arises in the mind. The illusion of the whole of our earlier life is annihilated in an instant; we are undeceived as to the repose of nature; we feel ourselves transported to the realm, and made subject to the empire, of destructive unknown powers."

Had I time I might say something upon the devastating effects of land-slips, but which from their name you can sufficiently understand without further delay in noticing them. The most remarkable have been at Mount Gremer, in Savoy, in 1248, when part of the mountain fell, burying five parishes and covering an extent of nine square leagues with its ruins, now called Les Abymes de Myans. In 1806 the Vale of Goldan in Switzerland, with 97 houses and 484 persons, was overwhelmed by the fall of the Rossberg. In 1826, after violent rains following a dry season, an extensive land-slip occurred in the White Mountains, a part of the Alleghanies. On the 20th Dec., 1846, a hill called the Bingeler Kopf on the Rhine, which rises 380 feet above the river, gave way.

Water, one of the most important and abundant substances in nature, very widely diffused, is found in each of the three forms which bodies are capable of assuming: vaporous in the atmosphere, solid in ice and snow, and liquid in rivers and seas. Science deals with it chiefly in the last condition. Water is essentially a compound of two gasses, hydrogen and oxygen, in the proportion of one part of the former to eight of the latter. It seldom occurs, however, in a state of perfect purity, but variously impregnated with ingredients derived from the