forces had been somewhat differently balanced; though the wasting operation had remained as active and as powerful, while a more difficult pulverization of the rocks had made the restorative operation slower and feebler than before—still we might have had our permanent or stationary soils, but only all of less fertility than that in which we now find them. A somewhat different constitution of the rocks; or a somewhat altered proportion in the forces of that machinery which is brought to bear upon them—in the cohesion that withstands, or in the impulse and the atmospherical depositions and the grinding frosts and the undermining torrents that separate and carry off the materials—a slight change in one or all of these causes, might have let down each of the various soils on the face of the world to a lower point in the scale of productiveness than at present belongs to them. And when we think of the mighty bearing which the determination of this single element has on the state and interests of human society, we cannot resist the conclusion that, depending as it does on

is a fact, that the soil, notwithstanding, remains the same in quantity, or at least nearly the same, and must have done so, ever since the earth was the receptacle of animal or vegetable life. The soil therefore is augmented from other causes, just as much at an average, as it is diminished by those now mentioned; and this augmentation evidently can proceed from nothing but the constant and slow disentegration of the rocks. In the permanence, therefore, of a coat of vegetable mould on the surface of the earth, we have a demonstrative proof of the continual destruction of the rocks; and cannot but admire the skill, with which the powers of the many chemical and mechanical agents employed in this complicated work, are so adjusted, as to make the supply and the waste of the soil exactly equal to one another."—Playfair's Illustrations of the Huttonian Theory. Section III. Art. 13.