REACTION.

should hold their peace, the stones would immediately cry out." If man refused to do homage to the King of glory, when he came among them, the rocks more sensible, would break forth in his praises.

The discoveries of modern science, however, show us that there is a literal sense in which the material creation receives an impression from all our words and actions that can never be effaced; and that nature, through all time, is ever ready to bear testimony of what we have said and done. Men fancy that the wave of oblivion passes over the greater part of their actions. But physical science shows us that those actions have been transfused into the very texture of the universe, so that no waters can wash them out, and no erosions, comminution, or metamorphoses, can obliterate them.

The principle which I advance in its naked form is this: Our words, our actions, and even our thoughts, make an indelible impression on the universe. Thrown into a poetic form, this principle converts creation

> Into a vast sounding gallery; Into a vast picture gallery; And into a universal telegraph.

This proposition I shall endeavour to sustain by an appeal to well established principles of science. Yet, since some of these principles are not the most common and familiar, and have not been applied, except in part, to this subject, I must be more technical in their explanation than I could wish, and more minute in the details.

The grand point, however, on which the whole subject turns, is the doctrine of reaction. By this is meant the mutual or reciprocal action of different things upon one another. Thus, if a body fall to the earth, the earth reacts upon it, and stops it, or throws it back. If sulphuric acid be poured upon limestone, a mutual action ensues; the acid acts on the stone, and the stone reacts upon the acid, and a new compound is produced. If light fall upon a solid body, the body reacts upon the light, which it sends back to the eye with an image of itself. These are examples of what is meant by reaction, or the reciprocal action of different substances upon one another. But it is not every kind of reaction that will prove a permanent impression